

THE CHANGING SCHOOL

BOOKS BY
DR. P. B. BALLARD, M.A.

**TEACHING THE ESSENTIALS OF
ARITHMETIC**

An attempt to put the teaching of Arithmetic
on a sounder psychological basis.

THE NEW EXAMINER

A clear account of the new technique of
examining

GROUP TESTS OF INTELLIGENCE

A lucid account of recent developments in
mental tests.

MENTAL TESTS

Should be on the shelves of every teacher
So essentially modern and rational

THE CHANGING SCHOOL

This book deals with modern tendencies in
Education

**TEACHING AND TESTING
ENGLISH**

A brightly written book full of helpful hints
to the teacher of English

THOUGHT AND LANGUAGE
THINGS I CANNOT FORGET

UNIVERSITY OF LONDON PRESS, LTD

THE CHANGING SCHOOL

BY

PHILIP BOSWOOD BALLARD

M A , D.Lit

AUTHOR OF "TEACHING THE ESSENTIALS OF ARITHMETIC," "THE NEW
EXAMINER," "MENTAL TESTS," "TEACHING AND TESTING ENGLISH,"
"GROUP TESTS OF INTELLIGENCE," "FUNDAMENTAL ARITHMETIC,"
"FUNDAMENTAL ENGLISH," ETC.

CHEAP EDITION

NEW IMPRESSION

UNIVERSITY OF LONDON PRESS, LTD.

WAR-TIME ADDRESS

ST. HUGH'S SCHOOL, BICKLEY, KENT

FIRST PRINTED	.	.	.	May 1925
<i>Reprinted</i>	.	.	.	May 1926
<i>Reprinted</i>	.	.	.	July 1928
<i>Reprinted</i>	.	.	.	November 1929
<i>Reprinted</i>	.	.	.	November 1933
<i>Reprinted</i>	.	.	.	June 1941

Printed in Great Britain for the UNIVERSITY OF LONDON PRESS, LTD.,
by HAZELL, WATSON AND VINEY, LTD., London and Aylesbury.

PREFACE

THOUGH schools are always changing they are not always changing at the same rate, nor always in the same direction, nor always with the same significance. Sometimes the alterations mean no more than do the caprices of fashion; at other times they point to a profound change of heart or of creed in the great mass of the teaching profession. And nobody who has kept his finger on the pulse of education for the last few decades can fail to have noticed the peculiar restlessness of the period. The profession has been astir with movements: movements that really move, and move nearly, if not exactly, towards the same goal—the goal of freedom for the scholars. A great wave of fervour for freedom rose in the infant school, passed with diminishing force through the schools for higher learning, and broke unheeded on the walls of the university. Another great wave of enthusiasm for individual work followed the same course and stopped at the same point. Everywhere, except in the most conservative seats of learning, there has been a transfer of emphasis from teaching to learning,

everywhere a shifting of responsibility from the shoulders of the staff to the shoulders of the scholars. And the many minor changes that have concomitantly taken place have but served to swell the common current that has been heading steadily towards freedom and individualism.

The psychology of the Victorian age can make no great boast of having illumined the path of learning. But within the present century light has broken through at two distinct points. Mental tests have given us a calculus by which research may be rendered more exact and scientific; and the new psychology of the unconscious has cast some measure of light on the deeper wells of feeling and the subtler springs of conduct.

Mental tests I have already dealt with in other books, and I refer to them here merely to remove a misunderstanding. The mental tester is supposed to be a withering materialist who ignores spiritual values and teaches that the most important things in schooling are the most measurable. Nothing could be farther from the truth. He holds, in fact, that the relative importance of factors in education is often in inverse proportion to their measurability. He does not, as his opponents do, say that the higher things in education are immeasurable and forthwith proceed to measure them. He either measures them as accurately as he can, taking good care to discover

the probability of his estimate being true, or else he leaves them alone. He does not claim to be on the side of the angels merely on the strength of doing badly that which he says cannot be done at all. He knows that the last bird that is likely to soar is the ostrich. Thorndike has reminded us that a mother does not love her baby any the less for having weighed him. Nor, we may add, does she think any the less of his immortal soul by the fact that she finds it manifested in a ponderable body. Be that as it may, the reader will find little in this book about weighing the baby, though he will find a great deal about loving him, and understanding him ; and incidentally about feeding him (mentally), and even about smacking him.

It will be observed that I call the baby "him." And the reader, if he reads far enough, will discover that I also call the teacher "him" and the child "him." All masculine. Madam, I crave your indulgence. It is not through lack of respect for you that I do this. It is through a love of simplicity. Suppose I wish to say : If a teacher finds that he readily loses his temper he should take himself seriously in hand. I put it like that, not because I think the man alone has the privilege of losing his temper, but because I wish to avoid saying : If a teacher finds that he or she readily loses his or her temper, he or she

should take himself or herself seriously in hand. This, you will admit, madam, is intolerable. It is true that I can sometimes, though not always, take refuge in the plural; and it is also true that I may call the child "it." I have also on occasion heard the teacher called "it." But I do not care to call the child "it," and I will not dare to call the teacher "it." So until the day arrives, as it has already arrived in America, when the noun "teacher" becomes feminine, I beg leave to treat it as an all-embracing masculine.

After this digression from mental tests and babies into the briar-patch of English grammar, I will return to the second point at which light has recently broken through from the realm of pure psychology. The new theory of the unconscious has given us fresh clues to the interpretation of human conduct; it has enabled us to know a little more about the non-rational part of man, and it has brought home to us again the fact that if we wish to improve the mind we must pay great heed to the things that move the mind—emotions, passions, and motivating ideals. And that is why so much space is devoted in this book to problems of discipline; for the school is here regarded not merely as a place where lessons are given—and forgotten; but rather as a place where little human beings with warm blood

coursing through their veins act and react on one another and on the teacher, and shape, for good or ill, each other's characters. Happiness is made there, and misery; as well as bookishness and a love of learning.

A few brief excursions have been made into the distant past to point a contrast with the present; but most of the changes of which I treat have taken place within my own memory. And they are still going on as fast as ever. And they will continue. They will perhaps slow down; they will certainly veer and vacillate; but they will not stop till the last teacher has given his last lesson and the last learner learns no more. It follows that the word "finality" finds no place in this book. To believe that we have reached a fixed and final system of education, or indeed of anything else, betrays a curiously weak sense of historical perspective. We are prone to picture ourselves as living towards the end of things. We look back and see a long line of human evolution beginning far away in the mists and ending in "these latter days." But the oldest school in the land, University College, Oxford, goes no farther back, even in tradition, than a thousand years—a small fraction of the time that has elapsed since man first appeared upon the planet. Educationally we are but babes. We are at the beginning of things. The

historian of a hundred thousand years hence will refer to us as children of the dawn ; and he will be at great pains to explain to his readers (if reading will have survived as a mode of disseminating thought) the meaning of our little systems and sects, and the significance of names that had almost passed out of the memory of man.

Changes are inevitable. New ideas, large and small, will press upon us from all quarters. How are we to receive them ? The obvious answer is : With an open mind. Certainly not with a closed mind. Nor with the mind that is open at both ends, so that when a new idea gets in at one end it pushes out an old idea at the other. The ideal mind is biassed neither towards the old, nor towards the new ; it is biassed only towards the true. It will hospitably receive new ideas even though they quarrel with the old—as they almost certainly will. It will somehow or other make peace ; and this means a constant readjustment of opinions and convictions. When in any man's mind this readjustment no longer takes place he has ceased to learn by experience. He has become in his own eyes a pundit ; in the eyes of others an old fogey. From this fate may a kind Heaven preserve both the reader and the author.

I wish to express my gratitude to the Editor of *The Times Educational Supplement* for permis-

PREFACE

xi

sion to make use, in some of the chapters, of material which has already appeared in the columns of his journal; to Professor Cyril Burt for his helpful criticism of the chapter on The Unconscious; and to Mr. John Brown for his kindness in correcting the proofs.

P. B. BALLARD.

CHISWICK,

February 1925.

CONTENTS

	PAGE
PREFACE	v
CHAPTER	
I. FLOGGERS ANCIENT AND MODERN	i
II. VERSE FOR BABES	16
III. RAGGING	26
IV. THEORIES OF PUNISHMENT	38
V. THE DISCIPLINE OF NATURAL CON- SEQUENCES	50
VI. FREEDOM	63
VII. THE PERSONALITY OF THE TEACHER	75
VIII. FACING THE MUSIC	85
IX. THE UNCONSCIOUS	114
X. MIND AND METAPHOR	139
XI. FORMAL TRAINING	152
XII. IMAGINATION	169
XIII. INDIVIDUAL WORK	183
XIV. FROM LATIN TO ENGLISH	203

CHAPTER	PAGE
XV. THE BESSEMER PROCESS . . .	223
XVI. ACCURACY.	237
XVII. THE PASSING OF THE OBJECT LESSON	258
XVIII. THE ADVENT OF NATURE STUDY .	270
XIX. SCRIPT WRITING	280
XX. THE RETURN OF THE BABIES .	297
XXI. SCHOOL OR HOME ?	304
XXII. THE NURSERY SCHOOL . . .	315
INDEX	329

THE CHANGING SCHOOL

CHAPTER I

FLOGGERS ANCIENT AND MODERN

WHEN William Pitt junior wrote from school to his father he began with "Honoured Sir" and ended with an assurance of his continued respect and obedience; when the modern school-boy writes to his father he begins with "Dear old Bean" and ends with a request for more tin.

Mr. Frederick Locker-Lampson tells us in *My Confidences* how much he feared his father and how anxious he was to carry out his orders so as to avoid censure. "Now and then," he goes on to say, "I propose to send my children on an errand, and apologise for doing so. They accept the apology, but they do not go."

These examples indicate a profound change in the relationship between the old and the young.

It seems a simple and obvious truth that a child has a right to get as much profit and as

much joy out of life as he can, so long as he does not encroach on the liberties of others. He has, with this limitation, a right to enjoy himself in his own way, and a right to develop his own powers. But it was not till the nineteenth century that these elementary rights were conceded, even theoretically. In the classic days of Greece and Rome a child had no rights at all—not even the right to live. Being the property of his parents he was liable as a baby to be exposed on the hill-side. Infanticide was not in those days a crime, but a recognised social custom. And even till quite modern times it was tacitly assumed that the social system was run in the sole interests of adults. Children were to be seen and not heard. They should not speak till they were spoken to. It is true that children did not as a rule follow these injunctions, which were in fact flung at them in moments of adult exasperation; and it is fortunate for their sanity that they did not. The fact, however, remains that children in the past were at the mercy of their parents, teachers, or guardians, and were subjected to an unnecessary amount of tyranny.

And it is largely true of the present. Mr. Bernard Shaw bases what educational theory he may be said to possess on the fundamental fact that children are a nuisance—a nuisance, that is, to adults. Not that he champions the adults:

if anything he champions the children. At any rate he points out in his preface to *Misalliance* that there is a conflict of interests, of tastes, and of pursuits between the young and the old. And he shows with his usual acumen and wit the consequences of this conflict. Distinct from the duel of sex there is here a duel between the child and his parent in which the parent holds all the weapons, whether it be the real parent or the schoolmaster who stands in his place. And in the past he used at least one of these weapons freely. The rod was regarded as inseparable from instruction. We find abundant evidence of this all through the ages, from the "Orbilius plagosus" of Horace down to innumerable floggers in our schools to-day. Saint Augustine's first prayer was an earnest petition that he might not be whipped at school. Saint Louis of France, when he was a small boy, was daily thrashed by his tutor as a matter of discipline. If he did not deserve it at the time it was believed that he might some day, and the punishment was merely payment in advance. There is a tradition that John Milton was flogged at the University of Cambridge. Samuel Johnson said of his old schoolmaster at the Lichfield Grammar School: "He never taught a boy in his life; he whipped, and they learned." Tennyson was badly treated at school, and so was Thackeray. Thackeray

was so unhappy at Walpole House in Chiswick Mall, a place which he pilloried in *Vanity Fair* under the name of Miss Pinkerton's Academy, that he tried to run away. Nor did he fare much better at Charterhouse, for he writes: "The only prize I ever remember to have got was in a kind of lottery in which I was obliged to subscribe with seventeen other competitors, and of which the prize was a flogging. That I won."

Thackeray's account of the way in which his headmaster used to reprimand him appears under the guise of fiction in *Pendennis*. It is so typical of the heavy-handed pedagogue that I quote it here:

"Your idleness is incorrigible, and your stupidity beyond example. You are a disgrace to your school and to your family, and I have no doubt will prove so in after life to your country. A boy, sir, who does not learn his Greek play cheats his parent who spends money for his education. A boy who cheats his parent is not very far from robbing or forging upon his neighbour. A man who forges on his neighbour pays the penalty of his crime on the gallows. And it is not such a one that I pity (for he will be deservedly cut off), but his maddened and broken-hearted parents, who are driven to a premature grave by his crimes, or if they live, drag on a wretched and dishonoured old age. Go on, sir,

and I warn you that the very next mistake you make shall subject you to the punishment of the rod."

Heine tells us in his *Reisebilder* how wretched he was at school, and how for him the irregular verbs in Latin were distinguished from the regular verbs by the fact that in learning them he got more whippings. Sir John Everett Millais, before he was admitted at the age of ten as a student of the Royal Academy, where he carried off all the prizes, had only been two days at school. He was sent home in disgrace for biting the hand of the master, who was about to thrash him. And this tale of great men who suffered in childhood from the floggings of their schoolmasters is but part of a long story.

Sir Robert Blair tells us of a Scottish schoolmaster who had a simple and effective way of dealing with a boy who asked him a question which he could not answer. He flogged the boy. A story is told of a Yorkshire schoolmaster who caned a whole class of fifty boys because they spelled "pigeon" without a "d."

England alone has produced a good crop of floggers. There was Nicholas Udall in the sixteenth century who was headmaster of Eton and then of Westminster, and who was described by a contemporary as "the best schoolmaster and the greatest beater of our time." Then there

was the renowned Busby of Westminster, who is reported to have kept his hat on in the presence of Charles the Second lest his boys should think there was a greater man in the world than he. Busby's reputation as a flogger was as great as his reputation as a schoolmaster, which is saying a great deal. It was not without a touch of pride that men of a later generation could say : " Busby, sir, was a great man ; he flogged my grandfather." Harrow, Winchester, and indeed all our great Public Schools, can each produce its list of masters renowned for their liberal use of the birch. It was Eton, however, that got the larger share of opprobrium, mainly no doubt because it got the larger share of publicity. The school's tradition for frequent flogging established in the earlier days by Udall and Malim was, after a period of comparative clemency, fully revived by John Keate.

Dr. John Keate was in many ways a remarkable man. Starting in 1809, a year that marks the birth of a number of great Victorians, he ruled at Eton longer than any other headmaster before or since, and he ruled with greater austerity than ever did Nicholas Udall or Richard Busby. His voice never lost its harsh note of authority, nor his temper its even quality of ill-humour. His remedy for everything was flogging—flogging in the good old-fashioned English way. He flogged

everybody, and he flogged for everything. He flogged Mr. Gladstone, as the reader will discover if he reads Morley. There was a time when not only Gladstone, but half the bench of bishops could claim to have received the delicate attentions of Dr. Keate. He once flogged seventy-two boys in succession for cheating in Latin verse, a tale which exceeds by nineteen the number of Harrovians who were once thrashed by Dr. Longley for missing four o'clock bell in favour of a steeple-chase. But Keate's record reached its highest mark in the school rebellion of 1832, when late one Saturday night, after the boys had gone to bed, he had them brought down in small relays, and he flogged without pause till the small hours of the Sunday morning. On that dismal night at least eighty boys paid the penalty of their misdeeds.

There are two stories told of Dr. Keate which, though of doubtful authenticity, serve to bring into prominence the peculiar kink in the great man's mind. One refers to his comment on the Sixth Beatitude: "Blessed are the pure in heart. Mind that; it's your duty to be pure in heart. And if you are not pure in heart—I'll flog you." The other story tells about a group of boys who came to present their confirmation tickets to him. It happened that these tickets resembled those which it was customary to pro-

duce when the boys were sent up for punishment. Keate needed no further cue: he immediately set to work with birch and block, and was half-way through the business before a boy about to suffer spoke up and explained the facts of the case. "Sir," said Keate, "the profanity of your excuse but makes your offence the greater." And he continued the flogging till he had finished the whole batch.

We must not think too harshly of Keate and his kind. The situation they had to cope with was more primitive and more pressing than any which a modern schoolmaster has to face. For they often had to encounter the organised hostility of a whole school—to engage in a trial of strength between teachers and taught. Single disaffected pupils are common enough in our own day, and disaffected classes are not unknown; but a whole school in open rebellion is almost unheard of. When it does occur it is almost invariably a protest against the unfair dismissal of a favourite master or mistress. The revolt itself is a proof of the bond that binds the teachers to the pupils, not of the gulf that sunders them. A century ago, however, rebellions against the masters broke out sporadically in most of our Public Schools. There were two serious ones at Eton in Keate's time, one in 1818 and the other in 1832. A still more serious one had occurred

in 1768. The gravity of the situation lay not so much in the outbreaks themselves as in the general attitude of antagonism of which they were the symptoms.

When Keate first took over the reins of government at Eton he had not so much to deal with petty breaches of discipline as to maintain the school as a school—to prevent it from lapsing into a bear-garden. His predecessor, Goodall, was an easy-going man who had allowed the discipline of the school to become deplorably lax, and Keate was determined to pull things together. It was no easy task, for he himself was responsible for a form of 170 boys who were by no means models of docility. They played tricks upon him. They blocked the door of his schoolroom, and smeared his chair with cobbler's wax. Once, after he had expelled a boy, they hooted him and pelted him with rotten eggs. They took good care, however, not to hit him; for he always came out on top. Napoleonic in build he was also Napoleonic in courage, and, whatever we may think of his methods, it is much to his credit that he succeeded in subduing "to the useful and the good," or to some semblance thereof, the five hundred unruly lads who formed the Upper School of his day.

I have dwelt at some length on the discipline of Eton under Keate as it affords an excellent

example of hostility on the part of the pupils and intimidation on the part of the masters. A situation similar in some respects arose in the elementary schools in the early days of the school boards. In the seventies, and even in the eighties, quite big boys and girls were captured and brought into school for the first time. Though by no means stupid they were grossly illiterate, and often had to sit in the same class as children much younger than themselves. They appeared as dunces among scholars. And they had to do something to restore their self-respect. They accordingly asserted themselves in a variety of disagreeable ways. In London, where the city waif had acquired an impish ingenuity in outwitting his elders, the problem of the reluctant schoolboy became poignant. He played truant, he pilfered things from school, he "cheeked" his teacher and sometimes openly defied him. When attempts were made to punish him he refused to submit. He wriggled and dodged and raised an uproar, and at the earliest opportunity he ran home. There he found sympathy and active allies. When a boy ran away from Eton his father sent him back to be flogged; when the board school boy ran home he brought back an angry and truculent parent eager to have it out with the school-master. For the parents, resentful of being

forced to send their children to school when they might be earning money, nearly always sided with the children against the school authorities ; and the poor, unhappy teacher had a lurid time. Some of the teachers of those days were booed at as they passed to and from the school. A few, less fortunate, would find somebody waiting for them round the corner with a brick.

Let me point out, not as a social reproach, but as an historical fact, that nearly all the conditions that favour bad discipline were operative in the London schools of that period. Nearly all, but not all ; for the teachers, even the youngest of them, had been well accustomed to cope with disorder. They had all been pupil-teachers when pupil-teachership meant five years severe sink-or-swim apprenticeship in controlling hordes of children. The teachers were competent enough, but their chances were small : the stars in their courses fought against them. The parents were hostile, the classes were large (classes of eighty or ninety or even a hundred were quite common), the children when not actively mischievous sat glum and irresponsible, the teachers' hands were tied by regulations which forbade the use of corporal punishment by assistants, the curriculum, formal and repellent, was empty of the finer elements of culture, and finally the preposterous system of payment

by results was in full force. The teacher, knowing that his reputation as well as his purse depended on his pupils' scoring crosses instead of noughts at the annual examination, grimly set to work quelling disorder and grinding at the three R's; the pupils, who had no great love for the teachers, and still less for the three R's, resisted instruction as far as they could with safety to their skins. Could anything be less conducive to a healthy tone than this eternal tug of war—the teacher pulling one way, the pupils pulling another; the teacher eager to teach, the children equally eager to avoid being taught? Can we wonder that the teachers used rough and ready means of keeping order, that blows and canings were frequent in spite of regulations, and that the pedagogical methods were not in strict accordance with those advocated in the most approved text-books on school management? Yet these pioneers did a noble work. They tamed and civilised the wild denizens of our London streets. They are "the old contemptibles" who bore the brunt of the fight against ignorance, illiteracy, and hooliganism, and made possible the more humane methods of to-day. They have nearly all gone now. The last of them are passing out of our schools. And as they pass we lift our hats to them.

And not the men only; the women did, if

possible, still nobler work. I have known headmistresses in London, frail-looking and refined, who seemed incapable of a harsh word or a stern look, and yet who in their younger days had taught with notable success unwieldy classes of rough girls in the black spots of London, and had helped to humanise the mothers and the grandmothers of the children in the elementary schools to-day. And many of them did it by a force more persistent and compelling than that of cane or birch—a force that comes from a gentle, earnest, and generous nature.

It must not be inferred from what I have said that the recalcitrancy of the pupils was universal, nor yet the hostility of the parents. Both were common enough in all conscience, but there was from the beginning a large leaven of well-disposed pupils and parents. And the number of sympathisers rapidly increased and the number of malcontents rapidly diminished. It was not long indeed before the bulk of the homes became the friends and allies of the schools.

About thirty years ago a certain headmaster in Walworth had gained a local reputation as a disciplinarian. Like John Keate, he was a little man, not more than five feet in height, and slightly rotund. But unlike Keate he was imperturbably good-tempered. And he understood the Walworth lad as no one else did. At

any rate, incorrigibles from other schools got along quite well in his school, and boys who would take a thrashing from nobody else would, for some reason or other, take a thrashing from him without a murmur. One day a big, hulking boy, who was known to the neighbouring schools as a truant and a "tough," was admitted and enrolled. The next morning the lad was impudent to his teacher and was caned by the headmaster. In the afternoon a massive man of the Bill Sykes type entered the hall and walking up to the headmaster said :

" I want to see the man wot 'it my Bill."

" What's Bill's other name ? "

" 'Iggins."

" Well, I'm the man who caned your boy."

The big man looked down at the little schoolmaster in amazement, and exclaimed : " Do you mean to tell me that you wolloped my boy ? "

" Yes, and he deserved it."

" Law lummy, guv'nor, I'm afraid to 'it 'im myself. And to fink that you done it—a little chap like you. Gi' us yer paw."

They shook hands.

" Well ! " he went on, " I like yer pluck." And then suddenly : "'Ere, I'll tell yer wot. 'Ere's sixpence for you."

The schoolmaster, being a man of sense, pocketed the insult, and the sixpence ; and after

his visitor had gone downstairs still muttering his admiration, he entered a classroom.

“ Bill Higgins, stand up.”

Bill Higgins stood up.

“ I want to tell you that your father has just been to see me and has given me sixpence for thrashing you this morning. Now, remember, next time it's going to be a shilling.”

CHAPTER II

VERSE FOR BABES

AMONG the books of my early childhood the first that stands out clearly in my memory is a little blue paper-backed book bearing the well-known title: *Divine and Moral Songs for Children*, by Isaac Watts, D.D. And I cannot think of that little book without bringing back some of the terror it once roused in my infant breast. For though a few of the songs were harmless enough—mere exhortations to industry, holding up as an example the busy bee that improves each shining hour, or as a warning the sluggard who, as the door turns on its hinges so turns on his bed, and asks for a little more sleep and a little more slumber—others contain such desolating lines as these :

“There is a dreadful hell,
And everlasting pains ;
There sinners must with devils dwell
In darkness, fire, and chains.”

Or these :

“ There’s not a sin that we commit,
Nor wicked word we say,
But in Thy dreadful book ’tis writ
Against the judgment-day.”

“ ’Tis dangerous to provoke a God !
His power and vengeance none can tell :
One stroke of His almighty rod
Shall send young sinners quick to hell.”

Or again these, which tell the fate of the little
ribald boys who scoffed at the prophet’s baldness :

“ God quickly stopped their wicked breath ;
And sent two raging bears,
That tore them limb from limb to death,
With blood and groans and tears.”

The woodcuts with which the book was freely illustrated seemed to me but to deepen the gloom shed by the verse. There was one ghastly drawing where Death, represented by a skeleton, draws aside the curtains of a four-post bed and is about to carry off its terror-stricken occupant. That grisly skeleton haunted me for years. It crept into my dreams. On wakeful nights it stood out against the darkness, a white horror ready at any moment to pounce upon me and claim me as its victim.

When my brother and I quarrelled, as healthy children will, we had quoted to us :

“ Whatever brawls disturb the street,
There should be peace at home ;
Where sisters dwell and brothers meet
Quarrels should never come.

“ Birds in their little nests agree,
And 'tis a shameful sight
When children of one family
Fall out, and chide, and fight.”

Or these lines :

“ Let dogs delight to bark and bite,
For God hath made them so :
Let bears and lions growl and fight,
For 'tis their nature, too.

“ But, children, you should never let
Such angry passions rise :
Your little hands were never made
To tear each other's eyes.”

The last two lines have been echoed by Mr. Hilaire Belloc in the introductory verses to *The Bad Child's Book of Beasts* :

“ Child, have you never heard it said
That you are heir to all the ages ?
Why, then, your hands were never made
To tear these beautiful thick pages !

“Your little hands were made to take
The better things and leave the worse ones.
They also may be used to shake
The Massive Paws of Elder Persons.”

But this is in the modern vein. Dr. Watts had no jokes, but he abounded in threats. Note what happens to disobedient children :

“Have you not heard what dreadful plagues
Are threaten'd by the Lord,
To him that breaks his father's law,
Or mocks his mother's word ?

“What heavy guilt upon him lies !
How cursed is his name !
The ravens shall pick out his eyes,
And eagles eat the same.”

It will be observed that any sort of natural history was reckoned good enough to admonish a child with ; any fiction would do if it had a moral sticking out of it. All birds were good, except the birds of prey ; and all beasts were bad, except the little woolly lambs. Insects, too, were worthy and exemplary creatures, especially bees and ants. But by this time the birds and the bees have been found out. We know now that birds in their little nests do not agree : they

sometimes quarrel violently. We know now that the bee, far from gathering honey all the day, never works for more than two or three hours at a time, and spends the rest of the day loafing about the hive. And if we compared the manners and morals of dogs with the manners and morals of birds, I am by no means sure that the birds would come off best.

Peace to the good Dr. Watts! For his piety I have a profound respect. He wrote the most popular hymn in the language, and even the little book at which I cavil contains one memorable poem—the beautiful cradle hymn beginning, “Hush, my dear! Lie still and slumber”—beautiful at least to some of us through the memories it evokes.

Dr. Watts had many imitators. Till well into the nineteenth century he set the key to which the poetry for children was pitched. Indeed, all children’s books of a hundred years ago, whether in poetry or in prose, bore the same family likeness. They were invariably made small to match the readers. The usual size was five and a half inches by three and a half, and the usual binding was board. The subject-matter was strongly tinged with the theology of Calvin and Jonathan Edwards. And many of the writers took modest refuge in anonymity. “By a Lady of Quality” frequently appeared

on the title-page. *The Dairyman's Daughter, an Authentic Narrative*, by a Clergyman of the Church of England, a lugubrious tale with the picture of a funeral as a frontispiece, had a tremendous vogue.

The imitators of Dr. Watts had less brimstone than he. But if they talked less freely about hell, they made up for it by talking more freely about death. Their verses reeked of graves and worms and epitaphs. One such book, which lies before me, is called *The Poetic Primer ; a Circlet of Little Rhymes for Little Readers*, by Clara Hall, Editress of *Affection's Offering*. The titles of the rhymes are enough : "Lines on a Young Lady Weeping," "The Stepmother," "On Two Infants who Died at the Same Time in the Hooping Cough," "The Dying Negro," "To a Lady Weeping over her Departed Child," "The Grave of the Pious Cottager," "To Emma," "Forget-me-Not," etc. Lest the lines to a lady weeping over her departed child should not succeed in kindling the imagination, an attempt is made to impress the harrowing spectacle on the young reader by a drawing intended to be gruesome. Fortunately, however, it fails to convince.

The Sunflower ; or Poetical Truths for Young Minds, by Mary Elliott (late Belson), was published in 1822. The quality of the author's

muse may be judged from the opening lines of the "Folly of Pride" :

"The mind of Lucy, once so placid,
Now harbours discontent ;
Her gentle temper grows quite acid,
And trifles give it vent."

It is only, however, when we come to such poems as "The Grave of Little James" and "Old John's Reformation" that we catch the full force of the moral teaching of Mary Elliott (late Belson). James was a good little boy who died young. He was clever, too, and always headed his class. "Nor did it jealousy excite ; all were pleased that he was right." The Jameses of those days were all prigs and milksops, and peculiarly liable to an early death. The modern James is quite a different creature. He is best pictured by A. A. Milne in *When We Were Very Young*. Here he is :

"James James
Morrison Morrison
Weatherby George Dupree
Took great
Care of his mother,
Though he was only three.
James James
Said to his Mother,
'Mother,' he said, said he,

'You must never go down to the end of the town, if you
don't go down with me.'"

Leaving this delightful James we will return to Mary Elliott (late Belson), and her account of Old John's Reformation. In the days of his youth old John was an idler and a vagabond. What was wrong with him apparently was his attitude of mind :

“ He viewed creation's wond'rous plan,
As but the common right of man,
And not of source divine.”

But one day old John got a sudden shock which made him mend his ways. It was a “ funeral cavalcade ” that did it—that and the parson's words at the grave :

“ He said ‘ The youth consigned to earth,
Was one of poor and lowly birth,
His father's fondest care ;
By industry had earned his bread,
Yet of the village school was head,
And always first at prayers.’ ”

The parson proceeded to exhort his young listeners to live the same life as the departed, so as like him “ to be mourned when in the tomb.”

“ To John these words were like a knife,
He trembled for his former life.”

Charles Lamb was in his prime when these books came from the press. They were by no

means to his liking. In a letter to Coleridge he writes scornfully of "Mrs. Barbauld's and Mrs. Trimmer's nonsense." But whatever may be said about Mrs. Trimmer (of whom I know but little) Mrs. Barbauld wrote healthier stuff than Dr. Watts or Mary Elliott (late Belson). Her *Hymns in Prose for Children*, first published in 1774, ran into many editions. My own copy, dated 1850, is the thirty-first edition. Hymn 1 begins thus :

"Come, let us praise God, for He is exceeding great ; let us
bless God, for He is very good.

He made all things ; the sun to rule the day, the moon to
shine by night.

He made the great whale, and the elephant ; and the little
worm that crawleth on the ground."

And this note of praise is pretty well maintained throughout the book. But though less gloomy and less gruesome than its contemporaries it shares with them an utter lack of humour. If we are to judge from the writings of the period all joy that was not at the same time solemn and sedate was banished from the nursery. And as the joy that children feel is not of that kind, it is to be feared that they hadn't much fun. It is certain that they hadn't much nonsense. Edward Lear's delightful book did not come out till 1840, and another quarter of a century had to

pass before Alice made her appearance. A short time ago, referring to books of this latter kind, a certain little girl said to me: "This is the sort of thing that glees my heart." That puts it briefly: the older books aimed at gloom; the newer books aim at glee.

It must not be inferred that the modern teacher thinks lightly of religion, or that he deprecates the teaching of religion to young children. What he deprecates is the attempt to make children good by frightening them. For the attempt is doomed to failure; nay more, it works mischief. Fear can produce an outward conformity to law or custom, but it can never produce that inner attitude which alone counts in the religious life. Though, however, it cannot make a saint it can make a neuropath; and often does.

CHAPTER III

RAGGING

DISORDER in school does not necessarily mean personal antagonism on the part of the pupils. Even when it amounts to a riot and an open revolt against the authority of a master, the number of real rebels is comparatively small. The bulk of the rioters are merely ragging—letting off steam, reacting against a general pressure that has been imposed on their self-assertiveness. It is often quite an impersonal expression directed in a vague sort of way against the whole universe of authority. They are not ragging anybody in particular: they are simply ragging. Of some such sort are the rags that take place at the universities, and at the schools of medicine connected with the hospitals. Rarely is there any personal spite, rarely any real purpose in the riot. There is often an avowed purpose, but this is not the real purpose: it is only a pretext—a rationalisation—a false reason for doing what the rioters want to do, they believing all the while that it is the true reason. The real driving force comes from the tension of the innumerable thwarted

impulses of each particular self. A pleasurable relief comes with the violent bursting of the barriers. The rioters riot for the mere joy of rioting.

It is impossible for a human being, young or old, to do as he likes. To say nothing about physical restrictions, there are social restrictions on every hand. The child is everywhere surrounded by people who impose upon him some sort of restraint, who demand of him a kind of behaviour which is to him repugnant. His wishes and desires are constantly curbed. Authority impinges upon him from all points. He first feels its pressure in the home; he feels it again in the school. His promptings to self-assertion meet with resistance, not only from his father and his mother but also from "his sisters, his cousins, and his aunts"; not only from his schoolmaster but also from his schoolmates; from everybody in fact who has any dealings with him. They control him individually and they control him collectively. He finds he has to mould his conduct in accordance with the opinions and customs of the various groups into which he enters. Far from doing as he likes he seems to be for ever destined to do what other people like. It is inevitable therefore that he should suffer from some sort of "authority complex," even though it should never attain that morbid degree

of sensitiveness which characterises the pathological complex. Somewhere in the depths of his nature, whether he knows it or not, there is a bottled-up force, and it is the escape of this force that gives to ragging its peculiar joy.

Rare is the school where ragging never takes place. Happy is the teacher whose class has never "pulled his leg," never "played him up," never tested his metal, never tried to make him lose his temper, never tried to make him look ridiculous. Boys (and girls are just as bad) do these things even in good schools. But the less they do it the better the school. Taken at its face value it is a nuisance: it stops the educational machine. Taken at its full value it is a symptom of a grave malady, of a vicious relationship between the three estates of the school realm—the teacher, the pupil, and the curriculum. The teacher exercises an authority which is arbitrary and excessive, or the curriculum is unattractive, or the number of pupils is too large for one teacher. These are the three main causes of the disease. When all three operate at once, as they did in the periods I have described, the disease becomes desperate. And the desperate remedy that is usually applied is the stick. But the stick proves to be no remedy at all, but merely a palliative. Nay, worse; an augmenter of the evil. By suppressing the symptoms it

aggravates the cause. For rags and rebellions are caused by suppression, and to attempt to cure the result of suppression by adding more suppression is like trying to neutralise the effects of compressed steam by sitting on the safety-valve.

And indeed, if we look simply at the outward facts we are driven to the same conclusion. When we take in a wide sweep of events we see that corporal punishment is singularly ineffective. It is ineffective with the mass and ineffective with the individual. Keate's rule of intimidation at Eton began with petty breaches of discipline and sporadic outbreaks of general disorder. It ended with serious rebellions. A study of the punishment books in our elementary schools reveals the disquieting fact that the same name recurs over and over again with the same certainty with which criminals return over and over again to our prisons. The school has its recidivists no less than the gaol. Punishment is not always reformatory, though it may be preventive; and if it is preventive it is preventive of the wrong people. It does not deter those who have a strong impulse toward wrong-doing. And those who have a weak impulse can be deterred in other ways.

If we are to strike at the root of the evil we must ignore the symptoms and deal with the causes. We must remove the excess of authority,

we must diminish the size of the class, and we must suit the curriculum to the interests and capacities of the children. "*Pas trop gouverner*" is an old and wise injunction. Authority there must be; but it should be a reasonable and beneficent authority, based upon the good of all, not merely upon the good of the person exercising it. The will of the teacher, far from being arbitrary and capricious, should represent the will of the social community. It should accord, as far as the will of a fallible being can, with the moral order to which we all owe our ultimate allegiance. If it does this it will not then encroach unduly on the little liberty that is left the child after Nature and convention have laid upon him their imperative claims. The withdrawal of the teacher's authority, as advocated by certain extremists, would not liberate the child but simply expose him—set him at the mercy of the most assertive and most aggressive of his classmates. It would be to substitute for an authority which is nearly always good, another which is nearly always bad. Fortunately it cannot happen. The teacher's influence, so long as he is there at all as a teacher, may be silent and unobtrusive. But it is none the less the dominating influence.

It is a mistake to think that children dislike being ruled: what they dislike is being ruled

harshly or unjustly, or capriciously. And not always do they dislike even that. There is apparent in each one of us not only an impulse towards self-assertion, but another opposing impulse—an impulse towards self-immolation. The two seem to be but the positive and negative aspects of the same fundamental instinct, the self-regarding instinct, aspects which sometimes take the extreme forms of cruelty and servility—a desire to inflict pain on the one hand and a desire to suffer pain on the other. The psycho-analyst, with his customary fondness for linking all impulses with the fundamental libido or sex-impulse, calls these two emotional trends sadism and masochism. Whatever may be our views on the question of origin, we are forced to admit the bare fact that some people have a strain of cruelty in their nature, while others have a strain of servility. Indeed these two strains often co-exist in the same breast. While there are some people who like to wipe their boots on others, there are, as though by an accommodating provision of Nature, other people who like to have boots wiped on them. There are, in fact, boots and doormats, tyrants and slaves, sadists and masochists. And many people are both at the same time—are tyrannical to some and servile to others.

These facts have led certain educationists to

put forward, tentatively if not finally, a boots-and-doormat theory of school discipline. They defend the martinet discipline of our forefathers on the ground that it makes judicious use of two forces which are always present in the classroom—sadism and masochism. The teacher is the sadist and the pupils are the masochists—an arrangement which is said to satisfy everybody. The teacher likes being boots and the boys like being doormats; so they are all happy. But are they? Have not the boys and girls sadistic tendencies as well as the teacher? And do they not sometimes long for a change of rôles? Do they not, at the slightest chance, turn the teacher into a doormat? And if this eternal see-saw between tyranny and slavery provides the character training of our schools, then in Heaven's name let us keep our children at home.

The truth of the matter is that cruelty in any shape or form can have no place in the education of a Christian people. If love—*caritas*—be the greatest of Christian virtues, then must we regard its opposite, hate, as the greatest of vices. And cruelty, which is hate in action, becomes an unpardonable crime. It is no defence to say that the sadist, when he tortures the masochist, is not really cruel, since his victim enjoys the process. That is a mere accident. The sadist intends to be cruel, he intends his victim to

suffer, and if his victim does not really suffer, it merely means that the scheme has miscarried : it in no way alters the immorality of the motive. Nor is it a defence to say that the sadistic teacher is not consciously cruel : he has persuaded himself that the pain he inflicts is for the pupil's good ; and the secret pleasure which he feels in chastising him, although really the satisfaction of an unconscious impulse to inflict pain, seems to him the reward of a conscientious carrying out of his duty. For this is merely saying that he has succeeded in fooling himself and has become a humbug without knowing it. Finally it does not follow from the fact that the masochist likes pain, that pain is good for him. To take pleasure in sorrow as sorrow is foul and unnatural. To be used as a doormat is bad for the doormat and bad for the boots.

Besides, this masochism argument is overdone. Masochism is a rare and meagre thing. Nobody wallows in an orgy of pains and penalties. The most masochistic of masochists draws the line somewhere : when the pain passes into torture he begins to jib. And indeed to say that he enjoys pain at all is a paradox that is only obliquely true. What he really enjoys is the pleasure that accompanies the pain but is no essential part of it. The pain is the price he reluctantly pays for the concomitant pleasure, and he is careful

not to pay a higher price than he can help. As for his servility, that, too, has its limits and its reservations. Even a worm will turn at last; and when he doesn't it is not because he likes being trodden on, but because he is a worm. A man deeply in love with a maid will endure much contumely at her hand. He may even kiss the rod; but he would much rather kiss the girl. A masochist is, in fact, just an ordinary man with a thin vein of emotional eccentricity. But this vein is thickly overlaid with the common stuff of humanity. Hath not a masochist eyes? Hath he not hands, organs, dimensions, senses, affections, passions? If you prick him doth he not bleed? If you wrong him will he not revenge?

Again, the boots-and-doormat theory of discipline demands a disproportion between sadism and masochism—one sadist to forty masochists—which cannot, except by a miracle, be secured. And even if it could, cruelty would still be a crime, and a voluntary submission thereto would still be a disloyalty to human nature, a surrender of some of the inherent dignity of the human soul. The theory must, in fact, take its place with the pleasant plea that God made little lambs to be eaten with mint sauce.

Let us rid our minds of the notion that a sound theory of school discipline can ever be

based on pathology. It is true that certain sinister trends sporadically appear in human nature, and that the sublimation of those trends—the diverting of them to nobler uses—is one of the most pressing problems of education as it is one of the most pressing problems of life; but it is not solved by letting the tiger that is in man still act as the tiger and the reptile still act as the reptile.

Since ragging is rooted in a desire to flout authority, and especially to turn the tables on the tyrant, the most obvious remedy lies in the removal of tyranny. But that is not enough. The sting of past tyrannies remains, and so does the sting of other tyrannies outside the school. There are still scores to be wiped off, and the rebels are not in the least particular with whom they balance the account. They are quite prepared to avenge on B a wrong received from A. Besides, they often fail to distinguish between the legitimate authority that draws its sanction from the very nature of human society and the illegitimate authority which is a gratuitous personal aggression.

As a further remedy the numbers should be reduced. If a class is large enough to become a crowd it is strong enough to become a mob. It offers a fine field for contagion and enables the individual offender to escape detection. The

smaller the class the more difficult is it to rag. Children never rag at home. They may be noisy, but the noise is not intended to harass the parents. It is mere exuberance.

The remedial task before the teacher is one of reconciliation. He has to reconcile the pupil to his teacher, and reconcile him to his work. To reconcile him to the teacher it is necessary for the teacher to abandon his aloofness: he must come down from his pedestal, move among his pupils on friendly terms and cultivate the field of common interests. To reconcile the pupil to his work it is necessary that the work should attract him. It need not inspire love at first sight, but it should be capable of inspiring love on close acquaintance, and within a time not unduly deferred. The sooner it grips his mind the better, and the more it grips his mind the better. The disciplinary troubles of last century in all our schools, from the kindergarten to the university, were in no small measure due to the dry and narrow curriculum which characterised them all—a curriculum empty of the deeper elements of culture and incapable of attracting by its own inherent force the immature minds that had to grapple with it. It was empty of the finer elements of culture, because it was framed on the view that education was mainly concerned with exercising the mind and scarcely at all

concerned with nourishing the mind. Latin grammar and the three R's may be dusty roads leading to pleasant pastures, but the pleasant pastures were beyond the children's vision : they saw nothing but the dusty roads.

CHAPTER IV

THEORIES OF PUNISHMENT

It has manifestly been felt that punishment is a suspect, that it stands in the dock and pleads justification. For the various theories of punishment that have from time to time been put forward prove to be little more than excuses, pleas which set forth the grounds on which we may be exonerated for inflicting pain on a fellow-creature. There are four such theories, which may be severally called the protective, the preventive, the retributive, and the reformative.

The first of them, the protective, is accepted by everybody, even by those who protest loudly that they do not believe in punishment of any kind. For it may justly be claimed that protective measures, aiming as they do at the restriction of liberty rather than the infliction of pain, are not punitive, except as an accident. The theory says that our prisons exist to protect those who are outside, not to punish those who are inside. We put our wrong-doers in gaol for the same reason that we chain up a savage dog. We owe the dog no grudge, but we don't want our friends

to be bitten. The one thing that may with certainty be said about the incarcerated burglar is that he is not a-burgling. It is true that he doesn't like being shut up, and takes his imprisonment as a punishment, but the protective theory regards this as an unfortunate side-issue : the essential purpose of his imprisonment is the protection of society.

To the student of jurisprudence the protective theory is perhaps of little importance, but to the student of education its interest is profound, as it seems to represent the doctrine not only of the Montessorians, but of all the ultra-modern advocates of freedom. In the true Montessorian school punishment is never imposed as a punitive device, but only as a protective device. If a child is a nuisance to the rest of the class he is put aside—he is placed where he can do no mischief to anybody but himself. If his removal requires the use of physical force, physical force is used. But he is not punished, except in so far as the segregation is itself a punishment. And this is not a penalty invented by the teacher, but is merely the penalty of natural consequences.

The preventive theory looks upon punishment as deterrent ; not in the sense that it deters the offender from repeating the offence (*that* is the reformatory theory), but in the sense that it deters others from committing the same offence.

It finds expression in the judge's dictum : " You are to be hanged, not for stealing sheep, but in order that sheep may not be stolen." Which, according to Ruskin, is equivalent to saying to the man : We forgive you for what you have done, but we are going to hang you up as a scarecrow. There does indeed seem to be a deep injustice in a scheme which demands the punishment of A for the benefit of B. It violates the Kantian principle that a human being should never be used as a means, but as an end only. That punishment does deter cannot be denied ; nor can it be denied that its deterrent function is beneficent. All this is implied in the penal code. For the avowed aim of Law, of Mediæval Law at any rate, is to enable good men to live among bad. Roman Law, according to Mr. A. J. Penty, has another aim : to enable rich men to live among poor. In either case the law provides penalties, and the penalties deter. How far they deter, or what type of penalty deters the most, is difficult to determine. Does capital punishment keep down the number of murders ? I have seen statistics which show that it does, and other statistics which show that it doesn't. Is moral pain as deterrent as physical pain ? What are the relative deterrent values of the " cat," solitary confinement, and social disgrace ? These questions may be multiplied indefinitely,

and the answer is always the same : it depends upon the person. Some people keep in the straight path through fear of the police, some through fear of Mrs. Grundy, and some through the fear of God. To apportion the three classes statistically is a hopeless task, not only because fear is inaccessible to statistics, but because the three kinds of fear are inextricably mixed in the same person. Nor must it be supposed that the three classes exhaust humanity, or indeed constitute the bulk of humanity. Most people do what is right by sheer force of habit. It never occurs to them to act otherwise. If all the pains and penalties imposed by the State upon wrongdoers were annulled to-morrow the great majority of mankind would go about their business in precisely the same way as before. A few, however, would not ; and those few could make things very uncomfortable for the many.

We cannot, except in the roughest way, evaluate the forces that prevent misconduct at school. There is noticeable, however, a growing mistrust of the deterrent power of corporal punishment, and a growing confidence in the efficacy of moral as distinct from physical sanctions. It is realised that the ordinary child (there are regrettable exceptions) fears a cut with the cane less than he fears a loss of prestige with his teachers, his class, his house, or his team.

And it is seen that these forces that restrict and restrain are but negative factors after all, and are less effective in creating in the school a healthy tone and a noble tradition than those positive and stimulative forces that incite to well-doing. A school is made or marred by what the children do, not by what they don't do.

Bacon, in a memorable passage, describes revenge as "a kind of wild justice"; and if he meant (as probably he didn't) that revenge is the wild beast of which justice is the tame and domesticated descendant, he would be expressing the modern psychological theory of the origin of justice. And he would be suggesting what is meant by the retributive theory of punishment. For the theory asserts that the wrong-doer should get what he deserves: he should expiate his sin with suffering. Blood and tears are supposed in some mysterious way to wipe out his offence so that he can start afresh with a clean slate. Writers on jurisprudence are wont to describe retributive punishment as a vindication of the law, or as a means of upholding the majesty and dignity of justice, or in some other pompous and impressive phrase. In the Scriptures, however, it is put quite simply and plainly: "Ye have heard that it hath been said, An eye for an eye and a tooth for a tooth." Equally simple

is the language of the populace: "to get my own back," or "to get even with him." It is the favourite doctrine of German philosophy. It found full-blooded expression in the writings of Carlyle, and more measured and more anæmic expression in the teachings of that school of Hegelian ethics which was founded by T. H. Green of Oxford, and which completely captured our English universities. Professor Mackenzie regards it as the most satisfactory of all the theories of punishment. It requires, however, that revenge should be filtered of all that is gross and personal and passionate, and should be handed over by the wronged person to an independent tribunal, by which it is, under the changed name of justice, to be impartially weighed and impersonally applied. The administration of justice thus becomes an organised scheme for dealing with a wrong against an individual as though it were a wrong against humanity—which of course it is—and relieving the person himself of the necessity of settling his own quarrels. It is a great social convenience. It is as convenient as getting your big brother to fight for you. But it is a moot question whether this vicarious administration of revenge is intrinsically more moral than the direct personal administration.

Let us hearken to Carlyle: "Revenge, my friends! revenge, and the natural hatred of

scoundrels, and the ineradicable tendency to *revancher* oneself upon them, and pay them what they have merited : this is for evermore intrinsically a correct, and even a divine feeling in the mind of every man. Only the excess of it is diabolic ; the essence I say is manlike, and even godlike—a monition sent to poor man by the Maker Himself. . . . My humane friends, I perceive this same sacred glow of divine wrath, or authentic monition at first-hand from God Himself, to be the foundation of all Criminal Law and Official horsehair-and-bombazeen procedure against Scoundrels in this world. This first-hand gospel from the Eternities, imparted to every mortal, this is still, and will for ever be, your sanction and commission for the punishment of human scoundrels.”

This outburst, which is quoted from *Latter Day Pamphlets*, No. II, was provoked by a visit which Carlyle paid, somewhere about 1850, to a new reformed prison. He found that the prisoners, instead of being herded in filthy fever-infested dens, were housed in cleanliness and comfort, were given wholesome food, and were allowed to take exercise in clean flagged courts. He saw the men engaged in picking oakum and the women engaged in sewing and laundry work. From a gallery he looked down upon certain Chartist Notabilities undergoing their term.

“Methodic composure, cleanliness, peace, substantial wholesome comfort reigned everywhere supreme.” And all this moved him to great wrath. That these miserable distorted block-heads, with their ape-faces, imp-faces, angry dog-faces, heavy sullen ox-faces—that these degraded, underfoot, perverse creatures, sons of indocility, greedy, mutinous darkness, and in one word, of STUPIDITY, should be treated not only without harshness but with positive kindness made the old man’s gorge rise. These abject specimens of humanity, who had sworn themselves into the Devil’s regiments of the line, and had got the seal of Chaos impressed on their visages—what had they, the Elect of Scoundrelism, to do with methods of love? What they needed was a collar round the neck and a cartwhip flourished over the back. For is not this the Eternal Law of the Universe, the Will and Commandment of God, the Unalterable Decree of the Almighty? And to disobey this Decree, what is it but to put a Devil’s Chaos in the place of God’s Cosmos? We are called upon by the whole Universe to hate the scoundrel, as God Himself hates sin, with a most authentic, celestial, and eternal hatred—a hatred, a hostility inexorable, unappeasable, which blasts the scoundrel, and all scoundrels ultimately, into black annihilation and disappearance from the sum of things.

The Ancient Germans had no scruple about public executions ; on the contrary, they thought the just gods themselves might fitly preside over these ; that these were a solemn and highest act of worship.

All this, and much more, is shouted at us in big capitals in this astounding Pamphlet. Here we see the doctrine of Blood and Iron (a doctrine which was to bear such bitter fruit sixty years later) backed up by the old device of stealing fire from the altar. The Almighty and all the host of Heaven are ranged on the side of the speaker, while the Devil and all his imps are ranged on the side of his opponents. God likes what he likes and hates what he hates. Here, too, we see the retributive theory of punishment stalking forth naked and not ashamed. Does it captivate you ? Does it seem to you to bear the stamp of eternal truth ?

Professor Mackenzie puts the doctrine more soberly and a little more attractively. He argues that the primary aim of punishment is to vindicate the authority of the law—to reveal the fact (I quote his own words) “ that the law holds good although it has been broken, that, in a sense, the breaking of it is a nullity.” If it is a nullity it is nothing ; and it is generally thought that the best way to deal with nothing is to ignore it. We must bear in mind, however, that

the doctrine, in its philosophic guise, hails from a land

“Where Hegel taught with profit and fame
That something and nothing are one and the same.”

Then all this talk about vindicating the Law! What is this Law that has to be buttressed by adventitious rewards and punishments? It is either God-made or man-made. If it is God-made it does not need vindicating: it will vindicate itself. For it becomes one with the Oriental law of Karma, which is based on a belief in a fixed and inexorable relationship of cause and effect which holds good in the moral as in the physical world; it is not arrived at by refining on the notion of personal revenge. If, on the other hand, the Law is man-made, what becomes of its majesty, its irrevocability, and its inviolability? Instead of being rooted in the nature of things it merely rests on social convenience. Like the Sabbath, it is made for man. And like the Sabbath it may be broken for the benefit of man without incurring the wrath of a divine Nemesis. It is true that the authority of a man-made law needs to be entrenched and fortified, but there is no need to pretend that a mere human expedient is a divine ordinance, and to bring to its support the whole machinery of heaven and hell.

Whatever may be said for retributive punishment from the legal standpoint, there is little to be said for it from the educational standpoint. Except that it fails. It fails in the school because its practitioner, if he is true to his creed, looks at the trespass only and takes no account of the motive: he punishes for disobedience as disobedience whether it is due to forgetfulness or to a rebellious spirit. It fails because reformation does not necessarily follow retribution. A hardening of the heart and a desire for reprisal is just as likely to follow as repentance and reform. It fails, in fact, because the offence and not the offender becomes the object of attention. The schoolmaster, like the Mikado in the opera, aims at making the punishment fit the crime, whereas his real aim should be to make the punishment fit the criminal. For only so can he help him to mend his ways.

Human beings differ so widely in character and temperament that they respond in widely different ways to the stimulus of pain. And while some are more sensitive to physical pain others are more sensitive to moral pain. The rebuke of a glance will produce in one child a remedial effect which cannot be produced in another by anything short of a sound thrashing. In fact, each separate child is a problem in himself. Our inveterate habit of treating all children alike in the matter

of punishment is as disastrous as our habit of treating them all alike in the matter of instruction. It is disastrous, that is, if the aim and purpose of punishment is to reform the wrong-doer. And this I take it is its only true and legitimate aim. The only justification we have for punishing the sinner is that it purges him of his tendency to sin.

Of the three main theories of punishment, the retributive, the reformative, and the preventive, the first makes the punishment fit the crime, the second makes it fit the criminal, and the third makes it fit the innocent. Paradoxical as it may seem, the last of the three is not the worst.

CHAPTER V

THE DISCIPLINE OF NATURAL CONSEQUENCES

So long as children find resistance only in things, and never in wills, they will become neither rebellious nor cholerick.

ROUSSEAU : *Émile*.

WHEN I first came across Herbert Spencer's doctrine of "natural consequences" it seemed to me to settle all the difficulties of school discipline. It was so simple and so reasonable. If a young child runs his head against a table he feels a pain. If he repeats the act he renews the pain. In the course of time he comes to look upon the pain as the natural consequence of the act. He comes to see that one follows the other with absolute constancy and inevitability. In all his dealings with inanimate nature he finds the same sort of fatality—the same unswerving persistence which listens to no excuse and against which there is no appeal. It is Nature's mode of punishment, her way of reforming the transgressor, her system of stern yet beneficent discipline.

This is the kind of training that a child undergoes long before he enters a school, and it is the kind of training that he undergoes after he has

left school and begun his battle with the world. The idle workman loses his job, the inattentive tradesman loses his customers, the rash speculator loses his money. Always some penalty follows wrong-doing: a penalty that is effective; a penalty that reforms the wrong-doer.

Before school-life begins, and after school-life ends, one system of punishment obtains—the natural system, the system which allows the penalty to flow from the offence as an effect flows from its cause—but during school-life, another system, arbitrary and artificial, takes its place. Anger, reprimands, blows, black looks, black marks, and impositions—penalties that bear no necessary relation to the misdeed—become the order of the day. And these artificial devices—the punitive practices of schools and prisons—are demonstrably less effective than Nature's methods. They are remedies that do not cure. The criminal returns again and again to the prison; the schoolboy who begins his school career with a flogging ends his school career with a flogging. He is as black a sheep at the end as he was at the beginning. All this should be changed. The discipline of natural consequences should be allowed to operate in the school as it is allowed to operate in the nursery and in the big world.

This is Herbert Spencer's doctrine of moral

education, a doctrine which implies the self-sufficiency of the moral universe. It implies that the moral universe, in all its parts and processes, is so well ordered that its forces are self-corrective. So well is it able to look after itself that any interference on our part is an impertinence. If virtue is its own reward, to add to that reward is a species of bribery; if there is an "even-handed justice that commends the poisoned chalice to our own lips," then it is as unnecessary as it is unkind to drop more poison into the chalice. The best policy therefore is a policy of *laissez-faire*. We must not only let virtue be its own reward, we must also let vice be its own punishment.

This view, which is only implicit in Spencer's doctrine, has found open and ample expression in Emerson's essay on Compensation. To quote one passage only: "Justice is not postponed. A perfect equity adjusts its balance in all parts of life. Οἱ κύβοι Διὸς ἀεὶ ἐνπίπτουσιν—The dice of God are always loaded. The world looks like a multiplication-table or a mathematical equation, which, turn it how you will, balances itself. Take what figure you will, its exact value, nor more nor less, still returns to you. Every secret is told, every crime is punished, every virtue rewarded, every wrong redressed, in silence and certainty." So complete an optimism, taken at

its face value, leads to strange conclusions. Though it may not mean that if you give a bad man enough rope he will hang himself, it certainly means that if you give a bad impulse enough scope it will kill itself. Mr. Homer Lane's story of the lad who was addicted to smashing things deliberately and maliciously and was cured by being invited to smash a valuable watch is quite a credible story to a thorough-going Emersonian.

Spencer himself did not push his own theory to its logical conclusion—indeed he clearly saw its weaknesses and its inadequacies—but he did lay down a broad general principle which, as a matter of fact, underlies many of the most efficacious disciplinary devices practised to-day. He maintained that it was the duty of the teacher to keep himself as much as possible out of the punishment, and to confine his efforts to administering the natural consequences of misconduct. He gives such instances as this: "A child has had out its box of toys, and leaves them scattered about the floor. Or a handful of flowers, brought in from a morning walk, is presently seen dispersed over tables and chairs. Or a little girl, making doll's clothes, disfigures the room with shreds. In most cases the trouble of rectifying this disorder falls anywhere but where it should. Occurring in the nursery the

nurse herself, with many grumblings about 'tiresome little things,' undertakes the task; if below-stairs, the task usually devolves either on one of the elder children or on the housemaid: the transgressor being visited with nothing more than a scolding. In this very simple case, however, there are many parents wise enough to follow out, more or less consistently, the normal course—that of making the child itself collect the toys or shreds. The labour of putting things in order is the true consequence of having put them in disorder."

This might have been written by Dr. Montessori or any of her followers.

For in the Montessori system prizes and external forms of punishment have no part. If a child idles he is allowed to idle and to experience the boredom that comes from having nothing to do. If he disturbs his classmates he is put in a corner to work by himself. Isolation is the natural consequence of making oneself a nuisance to others. And in nine cases out of ten it cures the offender. This is the kind of punishment that the Montessorians use. It follows logically from the offence and wholly accords with the Spencerian principle of natural reaction.

Mr. Norman McMunn records in his book *The Path to Freedom in the School*, that he used to start his dealings with a class of children by

telling them that whatever they did they would not be punished; and he claims that such tactics are signally successful. Others tell similar tales. They assert that their pupils, when given freedom to go wrong as well as freedom to go right, come to the discovery that the right road is on the whole pleasanter than the wrong. And they, by their own choice, cease to do evil and learn to do well.

Although but few teachers hold such "advanced" views, the whole trend of modern school discipline is in the direction indicated by Spencer. Less and less reliance is being placed on arbitrary rewards and punishments, more and more reliance is being placed on those rewards and punishments which spring naturally from human conduct. A sort of logic of punishments is gradually being built up. It is well therefore that we should examine closely and critically the pre-suppositions of the Spencerian theory; not with a view to refuting it, but with a view to finding its limitations and explaining why it is that it sometimes breaks down in practice.

To begin with, Spencer presents us with a picture of the universe which is only roughly true—which is true in its broad outlines but false in many of its details. It is, generally speaking, true that Nature has connected pleasure with right-doing, and pain with wrong-doing. For

wrong-doing is on the whole harmful, and a race of people who took pleasure in it would soon become extinct. It is not, however, true that the penalty is commensurate with the misconduct. It is not true that "the painful reactions are proportionate to the transgressions," and that "a slight accident brings a slight pain; a more serious one, a severer pain." A sharp kick on the shins will in point of fact produce greater pain than a fatal bullet-wound. We are quite prepared to accept the general view that pain is a sort of danger-signal, but we refuse to admit that the severe pain of an aching tooth points to a greater danger than does the slight pain of a paralytic stroke. Nature is, in fact, by no means an impartial administrator of justice. She neither makes the punishment fit the crime nor does she make it fit the criminal. Nor are her penalties always reformatory. They often incapacitate, and they sometimes kill.

The most convincing examples given by Spencer refer to the physical realm, where a rude and primitive sort of logic is easily discernible. The child runs his head against a table and feels a resultant pain. True, but such instances scarcely touch the fringe of the moral problem. That begins when he runs his head, not against a piece of furniture, but against a piece of human nature.

It is maladjustment to his social, not his physical, surroundings that makes a lad a delinquent ; and in this realm it is not at all easy to see what the natural consequences really are. What is the natural consequence of telling a lie ? Loss of credibility and prestige ? Yes, if the person is found out. But it is by no means certain that he will be found out. The punishment does not follow with the same inexorable certainty as that with which a physical effect follows a physical cause. So uncertain is it that many a man is prepared to chance it. And the special merit of the natural reaction—direct, unhesitating, and constant occurrence—seems to melt away just when its discipline is most needed.

Nobody can look around him with his eyes open and really believe that the righteous always prosper, much less that they prosper in proportion to their righteousness ; nor can he believe that the wicked are always put to confusion. Even hard work does not inevitably bring its just reward. A certain writer, in his early days, wrote a novel which he had great difficulty in getting a publisher to accept. But at last he succeeded, and sold the copyright for £50. The book had an enormous sale and the publisher made a small fortune out of it ; but the author made no more than was written in the bond. That early success induced him to seek a liveli-

hood by his pen. He worked hard, and worked steadily, turning out as many as fifty novels. But he never wrote another best-seller. And he remained a poor man all his lifetime. His first novel, which he "knocked off" carelessly and sportively, made a fortune (for somebody else); his other novels, into which he put all the strength he could compass, barely brought him in bread and butter. Such flagrant instances of social injustice are fortunately rare. But rare as they are they suffice to dispel the belief that the incidence of good and bad fortune is strictly determined by good and bad conduct.

The philosophical reader will by this time have become impatient of my careful exposition of the obvious and will accuse me of arguing on shallow lines, and of attaching undue importance to material things. To these charges I plead guilty. But I shift the onus to the broad shoulders of Herbert Spencer. I have provisionally accepted his own interpretation of the logic of rewards and punishments as it works out in the social and business world. His "natural reactions" are rewards and punishments in the external sense. They do not pretend to be other than inducements and deterrents of the most obvious kind. And I am merely concerned in showing that useful as is the doctrine of natural consequences in a general sense, it fails to give

us strict and infallible guidance in the discipline of our children.

Emerson's theory of the justice that lies at the core of the universe is very different from Spencer's. Their theories differ because their universes do not coincide. Emerson's universe is far more comprehensive: it includes the whole of the moral and spiritual world, and makes the soul itself the main centre of interest and value. While Spencer places the whole of the moral drama before the footlights, Emerson makes the most vital and significant part take place behind the scenes. As he himself puts it: "Every act rewards itself, or, in other words, integrates itself, in a twofold manner: first, in the thing, or in real nature; and secondly, in the circumstance, or in apparent nature. Men call the circumstance the retribution. The causal retribution is in the thing, and is seen by the soul." We may, in fact, be passionately convinced that the relation of cause and effect is as fixed and immutable in the moral world as in the physical world, without in any way believing that the effect of a good deed is what the world regards as a reward, and the effect of a bad deed what the world regards as a punishment. Of the many conceivable effects that may spring from any of our doings none is less uncertain than that suggested by Socrates when he says: "The

penalty of injustice is not stripes or death, but the fatal necessity of becoming more and more unjust every day." This moral deterioration is a natural effect, it is true; but it is not a punishment in the usual sense of the word: it does not necessarily give pain, nor does it lead to reformation.

We cannot, in fact, believe in the equity of Nature unless we take in a much larger arc than that indicated by Spencer. And when we take in that larger arc the natural consequences of our deeds are seen to be no longer the simple lures and checks which are supposed to keep our feet in the right path.

There is yet another weakness in the doctrine of natural consequences. The system is put forward as a substitute for the ordinary system of chiding and caning. And yet the chiding and the caning are as natural consequences as any other. If a boy carelessly breaks his plate at table his mother may on the one hand scold him, or even hit him; and on the other hand she may make him buy another plate (if he can), or go without a plate (and soil the tablecloth). Which are we to select as the more natural set of consequences? And if a boy at school is rude and insubordinate, can we conceive any reaction more natural than the teacher's anger? In fact, it is only when we make the term Nature exclude

human nature that the discipline of natural reaction can be regarded as alternative to the discipline of personal punishment. But, as I have already shown, when we have shut out human nature we have shut out the only nature that really counts.

Spencer himself was not blind to this objection, and admits that the praise or blame of others forms part of the consequences which are to be regarded as natural. Still, he stoutly maintains that "the discipline of chief value is not the experience of parental approbation or disapprobation; but it is the experience of those results which would ultimately flow from the conduct in the absence of parental opinion or interference." When, however, he comes to give concrete examples he brings in the giving or withdrawing of favour as the appropriate consequence of certain misdeeds. We cannot, in fact, ignore those serious cases of misconduct to which the emotional reactions are the only reactions. Acts of rudeness, selfishness, or cruelty often have no others. They are essentially offences against persons, and if the personal reactions are taken away, nothing remains.

Spencer uses this very objection to strengthen his main plea. For the efficacy of those personal reactions that go no further than a smile or a frown depends upon whether the teacher (and

it does not matter whether the teacher be a mother in the nursery or a professor at the university) holds the respect and affection of his pupils ; and he can only hold their respect and affection if he keeps his own personal feelings and caprices as far as possible out of the punishments. When the pupil is indifferent towards his teacher, when he neither cares to please him nor fears to offend him, the bestowal of the teacher's favour or disfavour has no disciplinary force. The efficacy of mere approval or disapproval is relative to the leverage of affection on which they work. And if the teacher, finding the leverage insufficient, resorts to stronger personal measures he merely aggravates the evil, and may consider himself fortunate if he does not turn indifference into active dislike.

One of the greatest disciplinary resources at the disposal of the teacher is the love of his pupils. It follows that the fund of affection in the class should be carefully fed and conserved. One should hesitate to subject it to the violent strain of cuffs and blows ; one should hesitate still further to wear it down by the constant attrition of a nagging tongue.

It is no small thing that Spencer has done in showing teachers how they may engender and retain the love of their pupils and at the same time subject them to a strict course of moral discipline.

CHAPTER VI

FREEDOM

FREEDOM is a relative term : it always refers, either tacitly or openly, to some restriction that is absent. When we say that a man is free we mean that he is free from something. Freedom, liberty, emancipation, all imply chains which might be there but are not there. When we talk about freedom, either in the State or in the school, we do not mean that the citizens or the pupils are free from all restraints : we mean that they are free from some particular restraints which have been imposed upon them in the past, or which may be imposed upon them in the future.

Absolute freedom is a myth. Nature has set limits to our capacities. Many as are the things we can do they are as nothing compared with the things we cannot do. Nature's inviolable barriers are reinforced by others, less rigid but no less real, which are set up by the human society among which we dwell. There are many things which we can do, and should like to do, but are not allowed to do. Other barriers, still more

flexible, are imposed by our own ideals, and our own sense of right and wrong. There are many things which we can do, and should like to do, and are allowed to do, but don't do. We accept these limitations without grumbling. We do not write to *The Times* to complain that we cannot walk on the ceiling, or that we cannot grow bananas in our back garden, or that we are not allowed to steal our neighbour's spoons, or that our conscience will not permit us to tell lies. It is only when somebody still further curbs our activities, and curbs them without any moral or social excuse, that we regard our personal liberty as invaded.

The problem of freedom is complicated by the fact that there are two distinct kinds of freedom, inner and outer ; and the less obvious of the two, the inner, is incomparably the more important. It is the more important because the whole purpose of moral education is to produce in each pupil a kind of inner freedom. When all external restraints are removed and a man seems free to do as he likes, he is still unemancipated, for he is not free to like—not free, that is, to like with his whole soul. Whenever one part of him prompts him to act in a certain way another part prompts him to refrain, and this resistant force curtails his freedom. We must recognise the fact that man is a strange mixture of brute and angel. He

has desires and impulses which he shares with the beasts that perish : he has other desires and impulses which he shares with the high gods. And these two parts of himself, the rational and the instinctive, the human and the brutish, the spirit and the flesh (call them what you will), are continually in conflict ; and this conflict impedes the freedom of his acts just as friction impedes the free working of a machine. If he were wholly a beast there would be no conflict ; if he were wholly a god there would be no conflict. In each case he would have achieved freedom, but the two freedoms would be poles apart in value. It was this that Huxley had in mind when he wrote :

“ I protest that if some great Power would agree to make me always think what is true and do what is right, on condition of being turned into a sort of clock and wound up every morning before I got out of bed, I should instantly close with the offer. The only freedom I care about is the freedom to do right ; the freedom to do wrong I am ready to part with on the cheapest terms to anyone who will take it of me.”

Mortal man is neither a black angel nor a white angel, neither a devil nor a saint, neither a beast nor a god ; but he is somewhere between these two extremes. He is *en route* from one to the

other. If he is leading a good life he is gradually becoming less of a beast and more of a saint. His lower instincts are being humanised, spiritualised, "sublimated," and are pressed into the service of the higher needs of his nature. Morally and spiritually he is growing up, and is putting away childish things. And all this change arises from the war of the spirit with the flesh, from the victories and defeats that come at the moral crises of his life. The victories may be consolidated by habit; and this too has its value in enabling him to hold the ground he has won; but it is only as the outcome of conflict that spiritual advance is made. Without a clash of motives and a deliberate choice between good and evil there can be no moral growth. If the good be chosen, all is well; if the evil be chosen, all is not lost. For evil has within it a self-corrective force. "Evil tendencies," to quote Professor Nunn, "though for a while they may flourish like the bay-tree, contain in themselves the seed of their own inevitable decay." This self-corrective tendency is, as we have already seen, implied in Spencer's doctrine of natural consequences. It is implied that at last, even though it be at long last, the wicked man will turn from his wickedness and live. It is implied that Hell is but a darker Purgatory—that it has an exit as well as an entrance, and that it is

nothing but a painful and circuitous way of getting to Heaven.

That is the doctrine of the Libertarians, and, roughly speaking, the doctrine is sound. Without freedom of choice there can be no moral growth; and under the old suppressive discipline there is no freedom of choice. If the alternatives are good and evil, the rejection of the evil is not secured by its own intrinsic hatefulness, but by the system of pains and penalties with which it is surrounded. And when in after life the same moral problem is met and the pains and penalties are not there, it has to be solved afresh, and solved by one who is spiritually still a child. This is why Huxley, after recording his predilection for an automatic goodness, has no scruple in contradicting himself by saying: "It is better to go wrong in freedom than to go right in chains."

I have assumed that the pupil's choice lies between good and evil; but the truth is that in nine cases out of ten the choice lies not between good and evil, but between good and good—or, at any rate, between competing lines of action which are in themselves neither morally good nor morally bad. For the bulk of the breaches of discipline in school violate no moral law at all: they merely violate a teacher-made law. And under the old regime of school discipline, a regime by no means over, the teacher-made laws are so

numerous that the margin of free activity left to the child is inordinately small. His options are reduced to a minimum. He can only do what he likes when what he likes is precisely what the teacher likes. The word most frequently on the teacher's lips is "don't." Don't talk, don't fidget, don't shout, don't whisper, don't sprawl, don't cough, don't move from your place, don't help one another, don't consult together, don't speak till you are spoken to, don't do this, don't do that, don't do the other. He would like to say "Don't breathe," if there were any chance of his being obeyed. And even the positive injunctions are negative in their intent. They cramp the body and impede its movements. Fold arms, hands behind, hands on head, feet together, eyes on ceiling. These phrases, which used to be heard daily and hourly in our schools, are dying a lingering death. The older teachers are loath to let them go. There are still schools where talking on the staircase is a punishable offence; there are others (girls' schools these) where the pupils, except at assembly and dismissal, may not walk in the hall except on tip-toe; others, again, where they are not allowed to cross the hall obliquely, but must, by walking parallel to the walls, arrive at their destination by a series of directions at right angles to one another. They must construct a

rectangular pattern upon the floor. It may be that some of these things are necessary for the general welfare of the school community; if so, they are regrettable necessities. They are regrettable because they impose limits not to be found outside the school walls, and unduly circumscribe the field of voluntary activity.

We find in the over-disciplined school a deadly stillness which is a relic of the days when discipline meant silence and obedience and very little else. It is true that there is about many a school of this kind an undeniable charm. The visitor feels it as he enters the door: he notes an air of orderliness and decency, an attitude of deference towards adults, a tone that flatters his sense of dignity and importance and soothes his poor nerves. And if the school existed for the benefit of teachers and visitors no system of discipline could be more admirable. But since it exists for the benefit of the pupils, and its primary aim is to develop their minds and their morals so that they may play a worthy part in the drama of life, the range of freedom in the school should bear a reasonable relation to the range of freedom in the world. Running with shackled feet a straight race in a narrow yard is but poor preparation for a long race across country where there are diverse paths, and few signposts, and many pitfalls, and much fog. It is not argued that the two areas

of freedom—freedom in the school and freedom in the world—should exactly coincide; for the adult is protected by his riper knowledge from certain mortal perils to which the child cannot wisely be exposed. We do not let babes play with fire, nor young children with edged tools, nor youths and maidens with deadly poisons. Once bit twice shy is a good motto; but if the bite cripples or kills it is too big a price to pay for the experience.

In fact, the theory of freedom in the school-room, driven to its logical conclusion and put unreservedly into practice, shares the essential defect of the heuristic, or find-out-for-yourself, theory of teaching. The process it prescribes is far too slow. We see natural law at work in human society and we can judge the rate at which it remedies and reforms. We can take a wider sweep and witness the effect of natural forces upon the human race during the many centuries of historic time; and the improvement we see taking place is not sufficiently marked or sufficiently certain to justify us in believing that the unaided agencies of nature will produce a reasonably rapid change for the better in the lifetime of one individual. If the change is slow in the mass, it must also be slow in the units of which the mass is composed. Some people deny that betterment takes place at all. We cannot,

however, without too bitter a pessimism and too small a regard for the whole body of facts, contend that mankind is making no moral progress at all. There is ample ground for believing that the right hand of society is a little stronger than the left—that the forces that make for righteousness are a little stronger than the forces that make for iniquity. We could wish the difference between the two greater. And indeed we can make the difference greater. That is what the schools are for, and what the churches are for. It is not enough to let experience—personal experience—do all the teaching. It is not enough to let the pupils in a school find out things for themselves. They must, as Dr. William Garnett puts it, not be *left* to find out things for themselves, but *led* to find out things for themselves. Our children need protection as well as liberty. Let us by all means give a boy enough rope for him to feel his freedom and exercise his powers ; but let us not give him enough rope for him to entangle himself hopelessly, and certainly not enough for him to hang himself.

When people plead for freedom in the school they always plead for more freedom : they never plead for better freedom. They always imply that freedom is a good thing in itself, good through and through ; and that one kind of freedom is just as good as another kind of freedom. The

truth, however, is that freedom varies as much in quality as it does in quantity. The freedom of a saint is a very different thing from the freedom of a sinner. The ideally good man has achieved an inner freedom. His soul is free from conflict. He does good from a pure unimpeded desire to do good. He is emancipated from the thralldom of low and selfish impulses. Psychologically speaking he is free. But so is the tiger. He too enjoys an inner freedom. He, too, follows, without let or hindrance from competing motives, a single-hearted desire. But in this case it is the desire to kill. The quantity of freedom may be the same in both cases, but the qualities are widely different. Considerations such as these have led moralists to distinguish between grades or levels of freedom, and to maintain that the highest freedom of man is achieved when his acts flow from his highest self. This supreme freedom does not merely mean freedom from external determination: it also means freedom from determination by motives that are irrational, or are inconsistent with the highest good.

It is pertinent to inquire how this ultimate goal may be reached. The irrational motives that menace our higher freedom nearly always come from the unconscious, and much patient psychological research has yet to take place before

we can deal wisely with that dark region of the human mind. We have to learn how to beat the chains that bind the higher self into tools that help that same self to achieve its own purposes. For it is by the transmutation of forces, not by the destruction of forces, that the ideal self can be realised. The rebels must not be disarmed or imprisoned; they must be turned into active friends and allies.

Freedom has a positive as well as a negative side. It is not attained by the mere removal of prohibitions: there must also be the provision of opportunities. It is all very well to tell a child that he is free to enjoy himself; if the means of enjoyment are not available, the permission is not of much value. Put beef, potatoes, and rice pudding before him and tell him to eat what he likes; if he likes none of them, if there are other foods which he enjoys more, and digests better, and derives greater nutriment from, he will not appreciate the option you have given him. Freedom in school implies among other things the providing of abundant opportunity for choice and abundant stimulus to effort. He should not only be left to choose but incited to choose—incited, that is, by the things themselves. There should be projects and pursuits that appeal to his interests and lure him into intellectual labour. We shall have set his feet on the high

road towards moral and intellectual freedom if we have made his virtues more interesting to him than his vices, and the things of the mind more interesting than the things of the body.

CHAPTER VII

THE PERSONALITY OF THE TEACHER

And one, a dotard grim and grey,
Who wasteth childhood's happy day
In work more profitless than play;

Whose icy breast no pity warms,
Whose little victims sit in swarms
And slowly sob on lower forms.

LEWIS CARROLL.

Much glamour has, for some reason or other, gathered round the phrase "the personality of the teacher." It stands in great favour with the schoolmaster of an argumentative bent, for he finds no formula more useful in pressing the point of his own argument or in diverting the point of his opponent's. It sometimes, however, turns treacherous. A speaker on the educational platform will expound a new principle or a new method, and after a warm advocacy of his views will end up by giving his case away with the remark, "After all, everything depends on the personality of the teacher." If he does not say it himself somebody in the audience will say it

for him. And the phrase never fails to meet a general murmur of assent.

The plea that the personality of the teacher is everything has been used to attack the training college, and it has been used to attack the movement towards individual work. It has been used to attack the training college on the ground that teaching is not a science but an art, and that an art is acquired by practising it, not by talking about it. And since the art of teaching is practised in the school and talked about in the training college, and since the only other thing the training college does is to impart academic instruction—to usurp, in fact, the function of the secondary school and the university—it is quite obvious that the training college is a superfluous institution. As for psychology, the teacher can well dispense with that. In teaching John Latin—to use Sir John Adams's immortal example—he need not know John; he need only know Latin. For instead of knowing John he had only to manage him. And the teacher's personality does that. His personality oozes out of him—radiates from him like the forked lightning that emerges from the magnetic man in the advertisement—reaches John and envelops him and keeps him in a proper frame of mind to receive instruction. Personality (not his own but his teacher's) having made him duly receptive

and docile, he drinks in knowledge at great speed.

The same line of argument has been pursued to show that individual work misses a great opportunity. For the children, instead of assimilating the teacher's superior personality, are engaged in developing their own inferior personalities.

The phrase in question has, on the other hand, been sometimes used in supporting the opposite view—the view that personality must be supplemented by special knowledge and special training. When it is proposed to dilute the teaching service with unqualified teachers the profession with one voice proclaims that a pleasing personality is not enough. It is not enough that the trainer of infants, however young they may be, should have a motherly heart and a secondary education ; she should have an *ad hoc* training for the job. I do not here contend that this argument is wrong ; I merely point out that it is inconsistent with the previous one. It is illogical to urge at one time that the personality of the teacher is everything, and at another time that it is next to nothing.

Why do we hear so much about the personality of the teacher and so little about the personality of anybody else ? Does not personality, even in its trivial manifestations, count equally in all callings where man has intimate dealings with his fellows ? Does not a lawyer's success

depend largely upon his air of shrewdness, a doctor's upon his bedside manner, and a preacher's upon his "presence" in the pulpit? In spite of this, however, we expect the lawyer to know something about law, the doctor something about medicine, and the preacher something about religion. In every profession there is need for technical knowledge and technical skill. Personality being common to all mankind, we treat it as we treat all normal and universal things: that is, we never say anything about it unless it goes wrong. Nobody ever tells us that he is sober unless he happens to be drunk; and when a man assures us that he is a gentleman we know quite well he has private doubts on the matter. The emphasis on the teacher's personality is therefore a trifle puzzling. The personality of the child, or of the parent, or of the inspector, is never referred to, except to point out that it may become a nuisance. The personality of the teacher is by implication all good: it is beneficent through and through.

We begin to suspect that the term has become a mere catchword. One characteristic of a catchword is that it tends to lose its true meaning and to acquire adventitious ones. It tends to lose its original meaning through the very frequency with which it is used. William James has pointed out that if the reader will look at an

isolated word—an isolated phrase would do just as well—and repeat it long enough it ends by assuming an entirely unnatural aspect. “It stares at him from the paper like a glass eye, with no speculation in it. Its body is indeed there, but its soul has fled.” This is the first thing that happens to the catchword: it loses its old meaning. To compensate for this it acquires a new meaning—or, rather, new meanings—meanings that are vague and nebulous and that shift and change with the purpose of the speaker. Moreover it gains an emotional tinge: it suggests like or dislike, praise or blame. It becomes “polarised,” as Oliver Wendell Holmes would say. With its penumbra of irrelevant associations it can no longer stand for a clear definite idea.

If the term “the personality of the teacher” has not yet reached the catchword stage it is evidently well on the road towards it. We might profitably, then, consider with some care what part the personality of the teacher plays in the school economy. The only difference, it seems to me, between the man himself and his personality is a difference of emphasis. For in ordinary speech (and I am not attempting a metaphysical inquiry, nor even a psychological analysis) we identify a man’s personality more with his soul than with his body, more with his character than with his intellect, more with his

natural gifts than with his acquired habits, more with his subtler and more intangible attributes than with those grosser qualities that lie on the surface. To put it in another form, a man's personality is the man himself as a social force—the man himself in so far as he moves the minds of other men, and is in turn moved by them. To impress and to be impressed—these are the main functions of personality. They constitute its dynamic meaning—the only meaning relevant to this inquiry.

We can now see why so much stress is laid on the teacher's personality. It is largely a relic of the crowded class. If sixty boys or girls, to whom Nature has given diverse aptitudes and diverse interests, have to sit together in one room, and have to learn the same thing at the same time and in the same time, it is obvious that there must be some unifying and impelling force. That unifying and impelling force is the teacher. If he has a strong personality and can impress his will upon the class he can secure at least an outward show of conformity. The class is in good order: the children appear to attend and they appear to learn. If he can do more than this—if he can turn appearance into reality—he becomes in his small way a sort of Cæsar who prints his image and superscription not merely upon the coinage of thought, but upon

the very minds and souls of his pupils. And that is the sort of thing to which some of our modern reformers object. Mr. Norman McMunn, for instance, regards it as an obstacle in the child's path to freedom. The lad John Smith has a right to his own personality, a right to develop his own powers in his own way, a right to become as different from John Jones as Nature and the safety of society will permit him to be. He should be free to make mistakes, so long as they injure nobody, and so long as they lead to self-correction. At any rate he may justly object to being standardised like a Ford car. The model may be an excellent one, but it is not his own; and his own would be for him a better one, even though it were in itself inferior.

The reader will no doubt feel the force of Mr. McMunn's objection to the impressive personality by recollecting certain incidents in his own childhood. He will recall the spiritual pressure put upon him by some pious and well-meaning person who wanted him to be good in that person's own dull way when he himself wanted to be good in his own thrilling way, or even to be, as a little girl once put it, "not naughty and not good, but just comfortable." He resented the tyranny. He did not wish to be good on those terms; felt, indeed, that he could not be good

on those terms—that compulsory goodness was not goodness at all.

So far we have assumed that the dominating personality is a noble personality, but it is just as likely to be ignoble—or at least to fall short of that high degree of integrity which alone would justify an attempt to mould to a common pattern the plastic minds of children.

However that may be, under the class system dominance of some kind is necessary, and a genial personal dominance is better than the vicious and brutal dominance of a Squeers. And of the personal influence that keeps a class in order and secures from the children attention when listening and diligence when working, there are two things to be said. First, it is not of that heaven-born order that some teachers would have us accept; and secondly, the nature of the influence is gradually changing under the newer methods that are increasingly coming into vogue. It is, I suppose, true that there are some born teachers, teachers who can control a class the first time they try and who need no training of any kind. If there are they are very few; they are certainly not enough to go round. The ordinary teacher needs a little coaching and instruction before he can begin at all. Even then he begins rather badly. But it is interesting to note that after a few years' experience he is in-

distinguishable from the heaven-born sort. Every year the training colleges pour into the profession an army of young teachers (London itself absorbs about a thousand of them) and not one per cent. of them fail through the lack of the necessary personality. They vary widely in efficiency, but the variation is more often due to difference in intellectual equipment and interest in their calling than it is to difference in personality.

Again, the nature of the personality that makes for efficiency is itself changing. Under the newer and more humane methods, which aim at giving each individual child the opportunity of making the best he can of himself, it is not the masterful personality that secures the real success, but rather the sympathetic personality. It is not so much dominance that is needed as understanding. The teacher of the future will be less concerned with impressing his personality on his pupils than with gaining as much insight as he can into the personalities of his pupils, and trying to find in each of them the lamp that illuminates and the spring that motivates.

Let not the teacher think that in stepping out of the limelight his personality will be eclipsed and his influence will cease. The better part of himself can never suffer eclipse. For it is the part that inspires his pupils—the part which

kindles a joyous endeavour from within instead of imposing a dead pressure from without—it is this that will be remembered in future years with gratitude and affection by his pupils. And this part of his personality is obviously cultivable : for it depends largely on the insight that comes through knowing his pupils, and knowing his subject, and knowing how to bring these two factors into proper and profitable relations. It depends, in fact, on his acquaintance with child psychology and with the technique of teaching.

It is pleasant to reflect that the finer qualities which the present trend of professional practice demands of the teacher incline to make him a better friend and a better companion. They tend to remove the reproach that he wears his gown in public and is out of place in the society of his equals ; that he is always teaching, always uncompromisingly didactic and dull. For the newer attitude leans towards the scientific and the receptive. He is more inclined to give and take on equal terms. He is shedding his habit of informing and correcting and dogmatising, and is acquiring a little wholesome humility. He is, in fact, becoming less of a schoolmaster and more of a man.

CHAPTER VIII

FACING THE MUSIC

It iz a wize man who proffits bi hiz own experience—but it is a good deal wizer one who lets the rattlesnaik bite the other phellow.

JOSH BILLINGS.

WHEN a young fellow straight from the training college faces for the first time a class for which he is solely responsible he cannot help feeling a little nervous. He sees before him forty or fifty little unknowns, each a possible cause for pride, or a possible source of trouble. By the end of the first morning his worst fears are allayed. The boys have been as good as gold. But their goodness is illusory. It is for them as for him the period of curiosity, conjecture, and exact observation. Their period of experiment is yet to come. They begin cautiously. One boy takes a slight liberty, another takes a greater liberty, a third takes a bolder step, and the rest watch the effect upon the teacher and begin to calculate chances. They wonder how far they can go without too painful consequences. They try chatting and neglecting their work. They pretend not to

hear their teacher when he speaks, and occasionally they become insolent. Then one day it dawns upon him that his class has got completely out of hand. He begins to fear that he does not possess a natural gift for discipline, the keen edge of his enthusiasm for teaching grows dull, discouragement creeps in, and he starts wondering whether he has not after all missed his calling. For this young teacher I have a word of comfort. Thousands of the best teachers in England to-day began just like that. I can personally testify that some of the most brilliant head teachers in London to-day began just like that. His difficulties were their difficulties; and they were overcome, and that right soon, by courage, good humour, and common sense.

When Max O'Rell (M. Paul Blouet) applied for the post of French master at St. Paul's School he was warned by the Head that he would find the lads difficult to manage, and that the last French master was so exasperated by the conduct of one of the boys that he shot himself. Max remarked that he would have shot the boy. He got the post. Courage at least is necessary in a teacher.

So is good humour. During the Great War many a school suffered from a serious shortage of staff. A certain boys' school in a rough quarter of a large city was singularly unfortunate. One

of the classes had been taught by a long succession of temporary teachers, mainly women, and had lost cohesion as a class and become a disorderly mob. One morning a new "supply" appeared, a wounded and discharged soldier—a pale, fragile young fellow. The headmaster looked at him, thought him impossible, and asked him to go back to the Education Office with a request that the Director should send an older man who was a specially strong disciplinarian. But the young fellow claimed that he had had experience in dealing with rough boys and was not in the least afraid of them; and he begged to be allowed to try his hand. He was allowed to try his hand. As soon as he entered the classroom the whole class began to sing: "Won't you go home, Bill Bailey?" Time and tune were a little faulty and the key was a trifle uncertain, but the boys sang with great gusto and much merriment. The teacher stood at his desk quietly smiling and waiting for the tumult to die down. Then he said in a calm, matter-of-fact voice: "That's quite a good song, boys; but you sing it rather badly. Besides, you haven't got the words quite right. We'll see if we can't do better than that." He was apparently a good musician and knew the song well, for he soon had the music and some of the words down on the blackboard. While he wrote the

boys talked and laughed, but there was no serious disorder. Then he got them to sing "Bill Bailey." The boys entered into the spirit of the thing and were soon singing in something like unison and with some regard for melody and tone. "That's a little better," said the teacher encouragingly, "but you are far from perfect yet." And he kept them singing "Bill Bailey" till play-time. When they returned from play they expected a new lesson. No! They had to sing "Bill Bailey" again. And sing it they had to the whole morning. When they arrived in the afternoon they found more blackboards up, and more verses of "Bill Bailey" ready for them. They begged to be let off; and, after some show of reluctance, he yielded. They were quite good that afternoon. They seemed a little puzzled, but they evidently regarded him as a good fellow—one of the right sort. He never lost his temper, nor did he raise his voice, or chastise them in any way. Although his troubles were not over yet, and he had to threaten them with "Bill Bailey" once or twice, in a week or two the class was in excellent order.

A rapid succession of teachers, especially if they are tyros, always tends to lower the tone of the class. The children get sophisticated. They discover methods of annoying the teacher without being individually found out. And once

they have tasted blood—once they have experienced the joys of ragging—they are sure to give the casual or temporary teacher a lurid time. The very presence of the stranger suggests a rag. When the headmaster is in the room they are models of propriety, but as soon as his back is turned trouble begins. That is why school practice was for the old-time training college student so terrible an ordeal. Indeed, I know one college where it was a general custom for each batch of students at the end of the three-weeks' practice to meet in the "gym" and sing the Doxology. For the practising school used to be attached to the training college, and was partly staffed by relays of students—a system now happily defunct. The scholars knew that the teacher would be there for a short time only, they knew that he had no power to inflict corporal punishment, and they were bent on getting as much fun as they could from the situation.

Let me exemplify by a lesson given some years ago at a school of this type and reported to me by the student himself. He was giving a lesson on India, and in dealing with the north-west boundary he happened to mention the fact that frequent fighting took place in the Khyber Pass. A boy held up his hand and said :

"Please, sir ! I had an uncle who was killed in the Khyber Pass."

"Very interesting," said the teacher; "now we'll——"

"Please, sir!" interrupted another boy, "my father was killed in the Khyber Pass."

"Yes! that will do!"

"Please, sir! my grandfather was killed in the Khyber Pass."

"Please, sir! my brother——" "Please, sir! my cousin——" The whole class was in an uproar. Every blessed boy had a relative whose bones were bleaching in the Khyber Pass; and each tried to proclaim the fact more loudly than his neighbour. And the poor student heartily wished that they, too, were in the Khyber Pass sharing the fate of their fictitious relatives.

Among older scholars humming is a favourite device; and a very safe one. Wads of chewed paper require a turned back, but a pupil can look his master straight in the face and hum furiously with little chance of detection, especially if others are humming at the same time. If the humming is fairly general, as it usually is, it is useless to tax any individual with it. He is almost certain to deny it; indeed, the more vehemently he denies it, and the more righteous indignation he displays, the more likely is he to be one of the ringleaders.

If a teacher is annoyed and perplexed by a peculiar twanging sound, suggestive of a Jew's

harp, he should examine the pupils' desks. He will probably find nibs wedged in the joints or driven into the wood. They emit quite a pretty note when flipped.

Ragging is not uncommon in the lecture rooms of some of our universities. As a rule the lecturer has himself to thank for it. Indeed, I have never heard of a disturbance taking place unless the lecture has been badly prepared or badly delivered. It is a natural protest on the part of the students against having their attention engaged on false pretences. They could not conveniently protest in any other way. They could not imitate the listener in the United States Assembly who, wearied by the member in possession of the floor, rose and said, "Mr. Speaker, I should like to know how long that blackguard is to go on tiring me to death in this manner."

It sometimes happens that a young man from the training college or the university enters the teaching profession with his head filled with generous ideals of discipline and with enlightened theories of teaching culled from the books he has read and the lectures he has heard, and the first thing he encounters is some such situation as I have just described. He had expected that some at least of the zeal that consumed him would be shared by the scholars he had to teach. And he finds himself face to face with an apathetic,

nay, a reluctant and recalcitrant class. He begins to think that there is something, after all, in what some of his older colleagues have told him—that he will have to rid his mind of all that training college nonsense, roll up his sleeves, fight the class till it has made an unconditional surrender, and then grimly hold the boys' noses to the grindstone for as long as they are under his charge. That is the mailed fist method of the past. Many years ago my own headmaster gave me this piece of fatherly advice: "When you get a new pupil into your class the first thing you have to do is to knock him down, put your foot on his neck, and keep it there. He will then be in a fit frame of mind for receiving instruction." As some of the pupils were as big as myself and half of them were girls I inferred that he spoke metaphorically. Taken thus it well described his own policy.

Let me assert straight away that all this ragging and rioting scarcely touches the fringe of the real problem of moral and intellectual discipline, a problem which is more concerned with development from within than with external order or disorder. It is true that the external disorder has to be stopped, but when it is stopped it merely means that the deck is cleared for action. The real educational work—the training of character and of intellect—has yet to begin. The novice

in question should, in fact, realise that his ideals and his methods are by no means at fault, but that he is witnessing the relics of a discredited system. Authoritarian methods cannot fail to breed rebellion and revolt. But under a system which embodies the newer conception of discipline, rebellion is almost impossible. It is almost impossible because, as far as the school is concerned, the motives for rebellion will have disappeared. But whenever the older methods prevail discipline will mean what it meant to our predecessors—keeping order in class. And when it means that it leads to a divorce of discipline from instruction, which has baleful effects on both. In the olden days, when two teachers were in charge of one class, it was regarded as a fair and just division of labour that one should teach while the other kept order. As a result neither the teaching nor the order was as good as when one teacher held full responsibility for both.

The truth is, that discipline cannot be severed from activity—whether that activity be work or play or mischief-making—for in the last analysis it is that activity regarded from the point of view of the permanent change produced by it in the general habit of mind and body. It follows that the order may be good and the discipline bad ; and conversely, that the discipline may

be good and the order bad. It is also possible for both to be bad—a horrible combination, not unknown in certain schools which claim to be modern.

Let us assume that the worst has happened to our beginner—that he is put in charge of a class which has got out of control and needs “licking into shape.” Whether the school is of the old type or the new, anarchy and discord must cease ere education can begin. And whatever immediate measures may be taken to quell disorder they must be regarded as mere palliatives unless they at the same time help to bring about a complete change in the spiritual atmosphere. For the root of the trouble is that teacher and class are at cross purposes. The children regard the two parties as occupying hostile camps. They think that what they want to do, and rejoice in doing, is just what the teacher wants them not to do; and what they want to avoid doing is just what the teacher insists on their doing. There is a conflict of interests and a clash of wills. The teacher’s first task is to eradicate this heresy root and branch. The children must by some means or other be persuaded that their own interests are in the long run coincident with the teacher’s interests. They must be brought to believe, even though appearances may be dead against the belief, that what the teacher wishes

them to do, disagreeable though it may be at the time, is in some way conducive to their own ultimate well-being. They must come to think of the teacher as their friend, and nothing but their friend; as a man whose outlook upon the universe has some similarity to their own, and who measures the important things of life with much the same scale of values. To secure this end, and bring about in the class this change of mind and change of heart, no sacrifice on the part of the teacher can be too great. No amount of time and trouble is unprofitably spent if it serves to put the relationship between him and his class on a friendly and sympathetic footing. For it is only in an atmosphere of mutual understanding, confidence, and respect that the best that is in the children can blossom and fructify.

It is not meant that the teacher should surrender any of his personal dignity, or any of his seriousness of purpose: all he is asked to surrender is his aloofness. And of course his hostility. If he regards his children as imps of darkness he is certain to bring out all the impishness that is in them. If he calls them fools and liars, not only is he making a charge which is not true, except in a very limited sense, but he is widening the very breach which it is his deepest interest to bridge. He is deliberately dissipating what little *entente cordiale* there happens to be.

For you cannot call your friend a fool without imperilling his friendship, and you cannot call him a liar without forfeiting his friendship altogether. Friendship may perhaps live with folly, but it cannot live with falsehood. If the teacher storms and rages at his class as a whole, and his finger never points to any particular boy or boys, he may perhaps escape with no loss of popularity. For it is well known that censorious preachers who lash the follies of the age, and fill their sermons with fire and damnation, are sure of a large following. But the congregation do not take it personally. While Mr. A says to himself, "That's a nasty one for Mr. B," Mr. B is saying to himself, "That's a nasty one for Mr. A." The boys, however, cannot so readily take refuge in self-delusion. For the teacher's strictures generally arise from incidents of the moment, and there is little doubt as to the head which the cap is intended to fit; though there may be considerable doubt respecting the head which it really fits.

The teacher should ~~refrain~~ refrain from acts of hostility and words of abuse. But this does not go far enough. He should take active steps towards good-fellowship. With watchful eye he should explore the pupils' minds and hearts, searching for their virtues with a magnifying glass and for their vices with a diminishing glass. For it is

on their virtues alone that he can build a solid fabric of friendship and goodwill. If he would hold his children steadily he should grip them by their strong points and not by their weak points.

There are scores of little ways by which friendly relationships may be fostered. None is more certain than taking a keen and active interest in the children's sports and hobbies. Here there is common ground, where hopes and fears, success and failure, joys and sorrows, slight and trivial though they may be, are shared together by teacher and taught, and they all in some measure minister to that fellow-feeling which makes the school world kin. It may be objected that the ordinary school curriculum also forms a common ground of interest. Potentially, yes; actually, no. If it actually were, disciplinary troubles would cease. There is this important difference between school studies and sports: the studies being the teacher's choice, the pupils' interest in them is under suspicion; but the sports are the children's choice, and it is the teacher's interest that is here suspect. And when the teacher, not so much by words as by deeds, convinces his pupils that he shares their keenness on things which they regard as worth while, he has gone a long way towards getting them to share his keenness on things which he regards as

worth while. After he and they have played games together in a spirit of joyous endeavour, he and they are more disposed to work sums together in a spirit of joyous endeavour. The gain in the playing field is transferred to the classroom.

Whenever the teacher and his class together take up some worthy project and pursue it with zest, whether it be the production of a play, or the issue of a class magazine, or the formation of a class library, or the fixing up of wireless apparatus, or anything else, they are by so doing steadily raising the tone of the class and improving its moral fibre. Even to have failed together is not a dead loss—so long as it is a noble failure. To have embarked in common, like Ulysses and his crew, on some brave adventure, to have toiled and wrought and thought together, to have ever with a frolic welcome taken the sunshine and the thunder—to have done all this is not only to have endeared the captain to his crew, but to have given the crew a taste of the true authentic discipline, the discipline of life.

To name the more fruitful opportunities which the school affords for co-operation and common enterprise—the school journey, the educational visit, the nature study ramble, the organised game, the handwork lesson—is to name pursuits in which the deeper distinction lies not

between order and disorder but between keenness and slackness. And keenness is here so natural and abundant that we may almost take it for granted, while slackness is so rare that even the children themselves look upon it with curiosity and scorn.

There are other means of cultivating kindness and mutual understanding. Let the teacher take a few of his boys home to tea—not too many, else it becomes an occasion for feeding rather than for fellowship—and he will find how differently they will come to regard him, and how differently he will come to regard them. He will discover little failings, at which he can well afford to smile, and unsuspected virtues which may well move him to secret admiration. And never again will they regard him as a task-master brandishing a whip over their heads and for some sinister purpose of his own exacting from them distasteful and unremitting toil; and never again will he regard them as preposterous little creatures offering, for some unknown reason, resistance at every point to the intellectual culture which he is striving to impart.

The importance of a right attitude of teacher and class towards each other and towards their common tasks, is nowhere more manifest than in the elementary schools that stand in those dreary parts of London which Arthur Machen

has likened to "the back wall of the eternal back yard." The teacher who takes up his duties in one of these schools finds himself brought into close contact with a number of small urchins, some of them grimy, all of them grammarless, speaking a lingo which can only by a stretch of courtesy be called English, their faces pinched, their clothes threadbare, without handkerchiefs and without manners, of low or mediocre intelligence, their intellectual interests narrow beyond belief, their experience of life gained in a sordid home and a small wilderness of drab streets, with the cinema, the music hall, the street market, the pawnbroker's, and the public house bounding their immediate horizon, and looming in the distance that too well-known place, "the 'orspittle." They show, in fact, every sign of being far more familiar with the asperities of life than with its graces and refinements.

That is the raw material on which the teacher has to practise his craft. How is he going to handle it? I have seen one teacher despising his material and working upon it gingerly with gloved hands. I have seen another take off his coat, roll up his sleeves, and enter heart and soul into the work, tackling it as though it were the one piece of work in the world worth doing. He realised keenly that it was his job, and that it called for all that was in him of patience and

devotion. If the boys were dirty it was his duty to teach them cleanliness, if lazy to make them industrious, if ill-mannered to give them courtesy, if their outlook was narrow it was his business to widen it, if their interests were few it was his duty to multiply them, if they had neither aspirations nor aspirates it was his part to give them both, if they came from restless unhappy homes where they were knocked about by bad-tempered fathers and nagged at by harassed mothers, it became his vital concern to make the school a peaceful refuge and a place of happy comradeship and pleasant occupations. He felt, in fact, that the less sweetness and light there were in the homes the more pressing was the need for them in the school. And as he puts these views into practice he begins to make discoveries. He finds that the material is not so poor as he thought. Surprising qualities come to light—moral as well as intellectual. His boys display little heroisms of which he never believed them capable. They show a fine spirit of sportsmanship and fair play, and they reveal a wonderful gift of friendship. In fact, the teacher finds, hidden among much dross, some of the sterling stuff of which heroes are made. He sees their baseness still, but he also sees that there is none of them so mean and base that hath not noble lustre in his eyes.

Although what I have said about the boys applies equally to the girls, the girls from poor homes seem to have additional virtues of their own. They are harder-worked and more self-sacrificing than the boys. For their home duties are endless. If a boy has to help his mother he thinks himself badly used and grumbles about it; but the girls give their help willingly and cheerfully, satisfied with rare intervals of rest and recreation. When they are not minding babies they are preparing meals, or running errands or scrubbing floors. And school becomes an interlude in the day's work. And for any little kindness shown them in school they are often touchingly grateful. In their own dumb, awkward way they repay kindness with still greater kindness. And they often show a fine discernment, a keen appreciation of the good in others which would reflect credit on a far better upbringing. Listen to what a little girl of eleven in one of the poorest schools in London says in an essay on her mother :

“ My mother is very kind and gentle. If I tell her anything that other people do not understand, she is almost sure to understand. She has brown hair and brown eyes. But her hair is getting grey, I suppose it is because she has so much anxiety. My mother is not very strong,

but she still has to go to work. I will tell you why I think she is so kind, if someone must go short in the family it is almost sure to be mother. My mother is most unselfish, all the year she saves up a few pence and at the end of the year she sends my sister and me into the country. My mother works in a laundry. When she is ill she never complains but goes to work just the same."

A girl of thirteen attending a similar school gives a candid account of her home. She describes her father as a jobber with uncertain employment and a large family. She continues thus :

" At night four of us sleep in one bed. For bedclothes we have underneath the bottom sheet a sheet of brown paper with holes in it for ventilation. For sheets we have sacks sewn together, and on top we have coats to keep us warm. Very often in winter in the middle of the night my sister or I would get out of bed and take the coats off the pegs and put them over us because we are so cold.

" We have a great many difficulties in the way of food and clothing.

" Mother goes to the baths three days a week. In the morning I get up at half-past six and get the breakfast ready. When baby wakes up I wash and dress her.

“Money matters weigh very heavy on mother because she gives father 7*d.* to go to work with, and he asks mother to get him a pint of beer in every night, besides taking a dinner, supper, and breakfast with him. Very often mother has said that she is going to move out of our house because she can't afford to pay the rent. But she has never missed a week in payment of the rent. Very often mother has gone without anything to eat just to feed us.”

Always the same tale of sacrifice on the part of the mother. And these mothers, mark you, are the same women that we see gossiping on doorsteps or roystering in a charabanc. We see part, and part only, of the picture.

Whatever the type of pupil, rich or poor, old or young, he needs to be studied, and studied in relation to the whole of his environment—to the home and the street as well as to the school. The teacher will thus gain a specific and peculiar knowledge which will prove more valuable to him in his work than anything he will find in a printed book. And he will forget that he is teaching subjects, and remember that he is teaching boys and girls.

And now, with a view to simplicity, not dogmatism, I will proceed to speak directly to our young beginner as though he had to sit beside me while

I stuck a few principles into him. In giving him advice I shall sometimes have to break the very rules I advocate (as, for instance, when I say "Don't say 'Don't'"); which merely means that I am not treating him as a child, and that I intend my broad generalisations to be seasoned with a pinch of common sense.

There is in America at the present time a young girl named Winifred Sackville Stoner whose amazing precocity and learning have brought her into the limelight as an intellectual prodigy. She was educated at home by her mother, who describes her methods in a book called *Natural Education*. The mother, for her own guidance, formulated ten rules, which she calls the Ten Nevers. Here they are: (1) Never give corporal punishment, (2) Never scold, (3) Never say "Don't," (4) Never say "Must," (5) Never allow a child to lose respect of self or of parents, (6) Never frighten a child, (7) Never allow a child to say "I can't," (8) Never refuse to answer a child's questions, (9) Never tease a child, (10) Never allow any other place to become more attractive than home. These are all quite good and well worth pondering. You must bear in mind, however, that they are intended for a mother or governess educating a child at home.

It must not be thought that wrong-doing

must be wholly extirpated before right-doing can begin—that to cease to do evil and to learn to do well are of necessity two distinct and successive phases separated by a pause. As a matter of fact, bad conduct is supplanted by good conduct by the method which in chemistry is called displacement. The simplest way to empty a jar of air is to fill it with water ; and the easiest way to fill it again with oxygen is to bubble oxygen into it, and thus gradually expel the water. It is the intrusion of the one that extrudes the other. So it is with behaviour at school. The bad and the good co-exist, and the bad can often be better diminished by increasing the good than by direct attention to the bad. It is by luring the boys into the right paths that you can best keep them out of the wrong paths. It is by firing their enthusiasm for noble pursuits that you can best damp their ardour for ignoble pursuits. In other words, put not your trust in negatives : put it in positives ; make more use of the word “ do ” than of the word “ don’t.”

Even when the classroom environment is made as varied and generous as possible so as to present abundant stimulus to study, you will find that many pupils will not respond to the stimulus. The incentive is too weak, the competing interests too strong. The laggards will not, merely at your invitation, leave the primrose path of

dalliance and tread what seems to them a steep and thorny path. They need more inducements than Nature has seen good to supply. And it is for you to supply those additional inducements. You must appeal to certain motives : you must set going certain springs of conduct. And there is one general rule that should always be observed : Appeal to the highest motive that will prove effective. The highest motive of all is the love of truth, of goodness, and of beauty—the impulsion of the three great fundamental ideals. When a pupil is deeply absorbed in a worthy piece of work, pursuing it for its own inherent attractiveness, loving it for its own sake and not for its dowry of happy consequence, he is realising the great ideals in what is probably the best way—unconsciously. When he pursues the work with an eye on the consequences which naturally follow, regardless of any adventitious rewards or punishments, he is still high up in the scale of motives that actuate human conduct. Below that comes the system of rewards and punishments, in which we take our cue from Nature and weight more heavily her bias towards good. In our hierarchy of motives it may be stated broadly that rewards stand higher than punishments, and moral forms of both higher than physical forms. A smile of approval is better than a prize—if the smile is sufficient ; and a frown of

disapproval is better than a blow, if the frown is effective. It is a mistake to think that any of these motives are, in point of fact, operative singly. They are nearly always many and mixed, And if you have to fall back upon a low incentive, you must not assume that the higher ones do not also contribute their quota of impulsion. The quota was never absent : it was merely too small to move the will.

Low as corporal punishment stands in the scale of punishments, there is one which, in spite of what I have said above, stands lower still ; and that is sarcasm. To lash with the tongue is often more cruel and more harmful than to lash with a whip. The whip may be forgiven and forgotten ; but bitter words will rankle in the heart for years. The pupil feels that the sneer, the taunt, or cruel jest of which he is the victim, is entirely a one-sided *ex parte* business, and therefore unjust. To quote Sir John Adams : " When the master opens up his mind and tells John what he thinks of him, John finds it convenient to reserve *his* opinion for open-air use."

One cannot fail to observe how in the elementary schools emulation is gradually ousting the grosser forms of punishment. The devices that have proved so effective in producing keenness in sports have been imported into the classroom. The house or team system is becoming increas-

ingly popular. And a pupil, instead of being punished or rewarded for his deeds, has a bad mark or a good mark credited to the house to which he belongs. His conduct brings upon him the approval or disapproval not only of the master, whom he may not heed, but of his house, which he is certain to heed. New social sanctions are thus pressed into the service of the school.

But the scheme brings in competition; and many of the more radical reformers would do away with competition altogether. They would have no competitive examinations, no mark sheets, no lists of pupils in order of merit, no pitting of boy against boy, or class against class, or house against house. The only person the boy can rightly compete against is himself. The only boy that the John of to-day should try to beat is the John of yesterday. The advocates of the team system reply that rivalry can never be eliminated from the school any more than it can be eliminated from the market-place, that it is one of the most powerful forces that goad and guide the mind of man, and that to reject its service in the school on the ground that it often works mischief in the business world is like refusing to teach a boy to write on the ground that he may one day become a forger. They further point out that although there is com-

petition between the groups there is co-operation within the groups, and a proper balance is maintained between these two opposing principles.

Whatever objections may be theoretically urged against the house system there is little doubt that it works successfully, and that it tends to raise the general tone and efficiency of the school in which it is adopted. And the moral danger attached to emulation, the danger of its producing pride in the victor and envy in the vanquished, seems under the house system to be reduced to a minimum.

Sir John Adams, in his book on Herbartian Psychology, puts forward a plea for humour as an educational organon. And indeed used as he would have us use it, and as he uses it himself, it is an unmixed boon. But when we cease to use it as an organon—an instrument—and use it as a weapon, it is liable to become a bane. I do not think the new school has more jokes than the old, but I am sure it has more jollity. There is less counterfeited glee and more genuine mirth. The martinet, with all his faults, is rarely dull. He has his jokes, but they are grim jokes, and the laughter they raise has no mirth in it: it shakes the side without shaking the inside. But poor as his jokes are they are as a rule better than no jokes at all. Nothing is pleasanter to hear than a peal of laughter coming from a classroom; nor

is anything more wholesome for the children—provided, of course, it is legitimate laughter. Much depends on whether the children are laughing with the teacher, or laughing at the teacher—whether he has made a joke or whether he is the joke. And even when the child is the joke the position is not free from peril. For children like to be taken seriously, and to exchange ideas on equal terms. Take them into your confidence, or let them take you into theirs, and they will crack a joke with you and enjoy it; treat them as unworthy of serious joking¹ and they will resent your treatment. You remember the description of the Olympians in the first chapter of Kenneth Grahame's *The Golden Age*: "This strange anæmic order of beings was further removed from us, in fact, than the kindly beasts who shared our natural existence in the sun. The estrangement was fortified by an abiding sense of injustice, arising from the refusal of the Olympians ever to defend, to retract, to admit themselves in the wrong, or to accept similar concessions on our part. . . . To be sure there was an exception in the curate, who would receive, unblenching, the information that the meadow beyond the orchard was a

¹ Mr. Frederick Locker-Lampson, when a boy, was chidden by his father for jesting on serious subjects. "But, papa," he protested, "if I don't do that, what am I to jest on?"

prairie studded with herds of buffalo, which it was our delight, moccasined and tomahawked, to ride down with those whoops that announce the scenting of blood. He neither laughed nor sneered, as the Olympians would have done ; but, possessed of a serious idiosyncrasy, he would contribute such lots of valuable information as to the pursuit of this particular sort of big game that, as it seemed to us, his mature age and eminent position could scarce have been attained without a practical knowledge of the creature in its native lair . . . in brief, a distinctly able man with talents, so far as we could judge, immensely above the majority."

The curate is a man worth imitating.

A few more "don'ts" for you, my young beginner. Don't threaten. If you do, let nothing stop you from carrying out your threat. If you say to a boy, "Do that again and I'll murder you," and he does it again, then you must murder him. If you don't he will lose all respect for you.

Don't humiliate a child too much : if you do you snap the bond of amity between you. An assistant mistress once said to me : "I hope Mrs. X. will not become our new headmistress ; for I was once a little girl in her class, and for some trifling misdemeanour she made me kneel to her. I have never been able to forgive her."

Don't shout. Cultivate a quiet tone of voice.

If the boys are noisy and inattentive, shouting will not remedy matters: it will only make them worse—worse at the time, and worse still when the next lesson comes. Instead of shouting them down, try whispering them down. Should you happen to serve in a school in a noisy street, don't try to compete with the traffic; you'll lose. You have quite a good voice; not a Caruso's, but serviceable enough for speaking purposes. Get it trained—not for singing (unless you are gifted that way), nor yet for reciting "The Charge of the Light Brigade" in public (gift or no gift)—but for simple speaking; for enabling your voice to "carry." It does not mean worrying your vocal cords: it means setting your resonators going—taking the hard work away from the vocal cords and putting it on broader shoulders.

Thank you! Now you may go.

CHAPTER IX

THE UNCONSCIOUS

Love, which is lust, is the Main of Desire.

Love, which is lust, is the Centric Fire.

W. E. HENLEY: *Hawthorn and Lavender.*

It is a mark of insincerity of purpose to spend one's time in looking for the sacred Emperor in the low-class tea-shops.

ERNEST BRAMAH: *The Wallet of Kai Lung.*

WITH the twentieth century came the psychoanalyst, and with the psychoanalyst came the scientific study of the unconscious. He did not invent the unconscious; he did not discover it; he merely made it a respectable object of study. It has now become quite right and proper for the psychologist who has a chair at a university to include it in his course of lectures. He no longer leaves this land of twilight and of darkness to the musings of poets, mystics, metaphysicians, and Americans. He has ceased to follow William James in regarding the unconscious as "a wicked Jack-in-the-Box" which is made to pop up at moments of embarrassment in order to explain away difficulties. But al-

though the psycho-analyst has made it respectable in one sense, he has made it disreputable in another. For if he was not the first to discover it, he was the first to detect it—the first to point out its shady character. Others had glorified it and made it the source of all that is good and noble in human nature. Wordsworth saw it trailing clouds of glory. Matthew Arnold made it a hidden stream which formed the true authentic current of our lives. Emerson merged it in the over-soul. “And this,” he writes, “because the heart in thee is the heart of all; not a valve, not a wall, not an intersection is there anywhere in Nature, but one blood rolls uninterruptedly an endless circulation through all men, as the water of the globe is all one sea, and, truly seen, its tide is one.” Israel Zangwill, with a much closer approach to the modern view, describes its contents as “wrecks and argosies and dead faces, mermaidens and subterranean palaces, and the traces of vanished generations; these are but a millionth part of its treasures.”¹ And then, with remarkable insight, for Zangwill wrote this in 1896, four years before Freud published his *Interpretation of Dreams*, he goes on to say :

“From this boundless reservoir, then, which holds our heredity and our experience, go forth

¹ *Without Prejudice*, p. 159.

the battalions of dreams—the infinitely possible permutations and combinations of its elements, wrought by the Working Sub-Consciousness when the poor Working Consciousness cannot get sound asleep, but must watch perforce with half an eye the procession of thoughts and images over which it has lost control. For it is the duty of Consciousness to control the stream sent up by Sub-Consciousness. When it is awake but unable to do this, we have Insanity; when asleep, Dreams.”

Most writers have posited this sub-conscious, or subliminal, or unconscious region to account for the inspiration of genius, and for those “obstinate questionings of sense and outward things”—

“High instincts before which our mortal Nature
Did tremble like a guilty thing surprised.”

In the unconscious, as revealed by the psychoanalyst however, we find none of these “high instincts,” but in their place the brute instincts which we have inherited from our remote ancestors. It seems, too, a sort of limbo for those thoughts and impulses which we have regarded as unworthy of us and have driven out of consciousness. So that instead of being the better part of ourselves and the source of our noble aspirations, it forms the worser part of ourselves

and the source of our temptations. It is apparently the place where the World, the Flesh, and the Devil hold sway, the Flesh being the dominant ruler according to Freud; and the World according to Adler. Jung seems to favour a divided rule. None of these three authorities, however, forgets to give the Devil his due.

It must not be supposed that the psychoanalysts form the only school of psychologists who study the unconscious and try to control it. There is an opposing school that employs hypnotism and suggestion. Coué and his kind look upon the unconscious as a half-witted creature that is not to be reasoned with, but has to be told kindly and firmly what it has to do. And it does it (sometimes); not at first perhaps, but after it has been told a large number of times. "What I say three times," says the Bellman, "is true." A thing has to be told the unconscious many more times than that before it becomes true. Twenty times just before falling asleep is, I understand, the regulation number; and twenty times just after waking. The idea is that we have to catch the unconscious when it is most permeable to suggestion, and that happens when the conscious is going off guard, or going on again. It is like a horse that is too deeply absorbed in its own pursuits when the rider is firmly in the saddle.

That it has its own pursuits is abundantly clear.

It controls those physiological functions which seem to us to go on automatically—functions such as the digestion of food, the circulation of the blood, and the building up and tearing down of bodily tissue. How else can we account for the simple fact that blisters can be raised by suggestion? It is because the unconscious has a more intimate connection with the body than has the conscious mind that all mental healers try in some way or other to reach the unconscious and to influence it. Those who use suggestion need no elaborate technique, for the practice of this art rests on the simple belief that the unconscious will do as it is told, if it is told in the right way.

Psycho-analysis, however, is much more difficult and complex. It demands special knowledge and special training. It repudiates the use of suggestion, though it is very probable, as Dr. Wohlgemuth has shown in his book, *A Critical Examination of Psycho-Analysis*, that suggestion is actually used. The suggestion is, however, unintentional. For the aim is not suggestion but enlightenment. The psycho-analyst tries to resuscitate old experiences—to renew mental conflicts that have been badly resolved—and to get them faced again with a more enlightened mind. He gives his patient a second chance to reach a rational decision. That, at any

rate, seems to me to be the essential factor in the psycho-analytic treatment of mental disorders.

I am not here, however, discussing therapeutic methods, but rather the influence which the new cult of the unconscious has had upon education. What influence has it had? Briefly, none!—none, at any rate, that is direct. That it has had an indirect influence of some kind is highly probable, for so close is the connection between psychology and education that it is unlikely that a marked change should take place in one of them *without producing some change in the other*. But it is clear that the new psychology has not yet provided us with a new pedagogy. It is true that the new psychology of the unconscious lends support in a general way to the modern educational trend towards freedom and individualism. But the two currents are independent. They merely happen to be running in the same direction.

We have long ago been shown by M. Guyau and Dr. Keatinge how large a part suggestion plays in the education of the young, and the modern teacher well knows the stimulating effect of praise, and the paralysing effect of telling a child that he is a born idiot incapable of doing this, that, or the other. The modern teacher well knows that his clothes, his gestures, his per-

sonal appearance, his facial expression, his habits of speech, his way of looking at things, all have their subtle influence upon the plastic minds of his pupils. This is suggestion unconsciously applied. As for suggestion consciously applied—the mass suggestion or auto-suggestion as carried out at Nancy—that has found no foothold in our school. Children are not taught to murmur in chorus: Day by day in every way I learn better and better. Nor, so far as I have observed, does the babies' teacher walk round the room during the sleeping hour, and tell each sleeping infant in gentle, cooing tones that his digestion is quite sound, that his heart beats true to health, and that his ductless glands are nobly doing their duty. Nor have the psycho-analysts fared any better. School children are not induced, either by direct or by devious means, to lay bare the secrets of the heart. The fears of the alarmists may be set at rest. Psycho-analysis, which is a long process carried out in private and requiring the active co-operation of the patient, can never in fact be practised in the classroom.

It is held by some that the real bearing of the new psychology is not on the pupil at all but on the teacher. It is the teacher who should be psycho-analysed, not the pupil. The purpose is to make the teacher aware of his own complexes. Here we must raise a protest. What are these

complexes which have to be discovered and disclosed? They are either normal and healthy mental phenomena, or they are pathological. If they are normal they form part and parcel of the ideas, emotions, and sentiments which constitute a man's mind and character. They are the common dough out of which human nature is kneaded. And to learn all that it is profitable to learn about them have we not Moses and the prophets? Have we not Marcus Aurelius, Thomas à Kempis, and Pascal? La Rochefoucauld, Samuel Butler, and Mr. Bernard Shaw?—to say nothing of the whole host of professed moralists and psychologists? If these have left any shred of poor human nature unscrutinised and unlabelled, that shred may safely be ignored. And any man who reads and thinks, and has honestly searched his own heart, erring on the side of severity rather than of leniency, has not much that is of consequence to learn about his motives—about his prejudices masquerading as principles, or his private desires assuming the guise of cosmic purposes. He must of course allow for rationalisation: he must remember that “our nature throws up earthworks against a contemptuous opinion,” even if that opinion be our own.

If, on the other hand, the complexes are pathological, I have nothing to say about them;

for I am not dealing with medicine but with education.

My personal belief is that the various theories of the unconscious that hold the field to-day have as a rule not got beyond the stage of hypothesis : they have not reached the stage of established laws. Dr. Wohlgemuth¹ and Dr. McBride have shown that the theories of the psychoanalysts have been arrived at not by the recognised methods of scientific discovery, not by a rigid process of scientific reasoning, but by a series of ingenious guesses, which though they may fit the facts are not shown to be the only hypotheses that do fit the facts. The theories may be true, but they are not proved to be true ; and if they

¹ Dr. Wohlgemuth's criticisms are levelled at the leaders of the movement, such as Freud, Jung, and Ernest Jones. He purposely ignores the smaller fry. He would not have had far to search, however, in the writings of the smaller fry for material for his satire. Miss Bradby's book, *Psycho-Analysis and its Place in Life*, for instance, which is deservedly regarded as one of the best books of its kind, flaunts a flagrant contradiction on the early pages. On page 10 she quotes with approval Freud's dictum : " The unconscious does not lie " ; and on the very next page she gives an instance of automatic writing in which the intelligence that guides the hand claims to be a departed spirit—a claim which, as a matter of fact, it nearly always makes. Yet, according to Miss Bradby, it is merely the unconscious telling lies. It may be : I don't know. But Miss Bradby can't have it both ways. The unconscious may be a George Washington, or it may be an Ananias, but it cannot be both.

are not proved to be true, it is premature to apply them. Except by way of experiment.

The most frequent charge made against the psycho-analysts is that they attach too much importance to sex. They lug it in everywhere. Even into Mathematics. A book has recently been published, so Sir John Adams tells us, on the *Sex Elements in the First Five Books of Euclid*. Mr. Wilfrid Lay, in a preposterous book called *The Child's Unconscious Mind*, devotes three pages to trying to persuade us that a person who adds a column of figures makes more mistakes with the fives than with the threes. He gives no statistical evidence, nor indeed any other kind of evidence. He merely gives one example, which he seems to have invented for the occasion. Now mark his explanation of the alleged fact. Three has a sexual significance: it is a symbol of man's creative power; while five "is linked in the memory of the race with weakness and solitude." Amazing!

It is not difficult, if you search diligently enough, to find any sort of sentiment in any sort of literature. Mr. James Payn claims to have found a touch of pathos in a book on Statics. Here is the passage: "But when AB is on the same line with CD, EF vanishes, the weight is supported by the immovable fulcrum G, and the body is at rest." Mr. Payn assures us that if this passage be read

with the proper tenderness of intonation and with a drop of the voice at the conclusion, it rarely fails to draw tears.

Psycho-analytic theory is further open to criticism from three angles. It draws its inferences too largely from pathological cases; it rests too heavily on the authority of great names; and it offers too mechanistic an explanation of human behaviour to be of the highest service to education. That it should seek its data in disordered minds is inevitable from its origin and purpose. It is a doctor's psychology, not a schoolmaster's. That it should rest on the authority of great names is equally unavoidable. All sciences when they begin rest on the authority of great names. Even the text-books of academic psychology to-day—and this is much older than the psychology of the unconscious—give us little else but an account of the human mind as seen through the eyes of a few great men. As the science advances, however, the human element is left behind. We pass from the study of Euclid to the study of geometry, and from the study of Newton to the study of physics. For the present we have to put up with the doctrine of the unconscious according to Liébeault, or Janet, or Freud, or Jung, or Adler, or Rivers, or somebody else. We shall in time arrive at the *science* of the unconscious. Master minds will build up

the edifice, but the bricks will be hard and unmistakable facts, and the mortar will be demonstrable laws. And the less of personal opinion there will be about it the less will there be for the wind and the weather to wear away.

The new psychology has provided us with what Professor Cyril Burt calls the geology of the mind as distinct from its geography. It has extended the study to subterranean levels. And in thus enlarging the realm of mind it would seem to be curtailing in some measure the realm of mechanism. It would seem to be superimposing upon the nervous system (the acknowledged physical correlate of the unconscious) a scheme of aims, ends, and purposes, of reasons and inferences, which is foreign to the physical world. But although the psycho-analysts—I refer mainly to the Freudian school—cannot escape the concept of purpose, and cannot avoid talking of wishes and aims and reasons, their ultimate ground of explanation is not teleological but mechanistic. They do not, when challenged, maintain that unconscious processes are in any way separate and distinct from neural processes: they *are* the neural processes.¹ How precisely the neural

¹ If this is not the creed of all the psycho-analysts it is the creed of at least a section, a section which includes Freud's colleague, Breuer. See quotation by Dr. Wohlgemuth on p. 51 of *A Critical Examination of Psycho-analysis*.

processes that subserve the unconscious differ from the neural processes that subserve the conscious, the new psychologist does not pretend to know any more than the old psychologist. And it is because he does not know, because he can form but the wildest conjecture of what takes place in the nervous system, and because he can describe and discuss the facts more intelligibly in terms of mind than in terms of nerves—it is because of all this that he uses the word unconscious at all. It is pure metonymy. It is like saying that a man is fond of the bottle when we mean that he is fond of the contents; and saying it because we know more about bottles than we do about liquor.

In thus regarding the operations of the human mind as part of the inviolable network of cause and effect, the psycho-analysts are but bringing psychology into line with the physical sciences, whose aim is to explain everything in terms of matter and motion. Many indeed consider this the ideal aim of all sciences. Its inadequacy, however, in the mental realm has often been pointed out, but never more convincingly than by Professor Nunn, both in his book on Education and in his address before the British Association in 1923. The mechanistic theory tends to explain a process by its origin and not by its goal. But a process cannot be defined, cannot

even be described, by reference to one end only. The *terminus ad quem* is just as important as the *terminus a quo*; and the lure from the end is just as real as the push from the beginning.

Let us briefly examine the process which is the essentially educational factor in the psychoanalytic doctrine—"sublimation." When a lower impulse comes into conflict with higher impulses, the healthy way of dealing with the lower impulse is not to suppress it but to "sublimate" it. And when we sublimate it we retain its energy but divert its purpose. The impulse changes in character. It is a change in a definite direction—a direction which is determined by purpose, by something which draws from the front, and not merely by something which drives from behind. We cannot in fact deny to ideals and a sense of moral values a compelling power which is distinct from the impulsion of instincts and distinct from the pressure of public opinion. To ignore this is to ignore the most vital thing in education.

It is from some dim apprehension of this truth, no less than to secure solace for a sense of outraged self-respect, that we turn with such relief from contemplating the seamy side of human nature to the contemplation of the other side; that we are so moved by the words of Stevenson

in *Pulvis et Umbra*, where, after tracing man's lowly origin, he writes :

“ Who should have blamed him had he been of a piece with his destiny and a being merely barbarous ? And we look and behold him instead filled with imperfect virtues ; infinitely childish, often admirably valiant, often touchingly kind ; sitting down, amidst his momentary life, to debate of right and wrong and the attributes of the deity ; rising up to do battle for an egg or die for an idea. . . . To touch the heart of his mystery, we find in him one thought, strange to the point of lunacy : the thought of Duty ; the thought of something owing to himself, to his neighbour, to his God : an ideal of decency, to which he would rise if it were possible ; a limit of shame, below which, if it be possible, he will not stoop. . . . In man, at least, it sways with so complete an empire that merely selfish things come second, even with the selfish : that appetites are starved, fears are conquered, pains supported ; that almost the dullest shrinks from the reproof of a glance, although it were a child's ; and all but the most cowardly stand amid the risks of war ; and the more noble, having conceived an act as due to their ideal, affront and embrace Death.”

It is not perhaps the business of the psychoanalyst to remind us of these facts ; but it is our

business as men not to forget them. And it is our business as teachers not to ignore them.

Let me now return to psycho-analysis and deal in detail with those of its doctrines which, if established, would signally influence educational theory and practice. Sometimes traditional theories are turned upside down. The traditional treatment of memory for instance (to take a mental process of vital importance to the learner) is based on the assumption that the mind is a plastic thing like clay or wax, that it receives impressions whose natural tendency is to fade away with the passage of time. We take the fading for granted and call it forgetting. It is the remembering that seems to us to call for explanation and not the forgetting; and the academic psychologist tries to supply us with this explanation. The new psychologist reverses all this. He says we should take remembering *for granted and seek for reasons for forgetting*. He contends that psychic experiences do not really fade and are never completely lost. They often sink to lower levels of consciousness and get further and further beyond the reach of recall, but they retain, in their own sphere, their vividness and their vigour. They sometimes seem to have entirely disappeared. But these buried memories can by appropriate means be dug up again; and it is then found that they were not

dead, nor even dormant. They were buried alive and awake, and they remained alive and active in their own stratum of consciousness. Forgetting is, in fact, not obliteration but repression; and to study the causes of repression is to study the obstacles to memorisation. We repress the disagreeable; and we always tend to forget the disagreeable and all its associates. If I constantly forget a certain person's name it is because I dislike him or somebody who resembles him or who has some connection with him, however remote or fantastic that connection may be. If I cannot remember Mr. Green's name it may be because Mr. Freen's second cousin once did me a bad turn, or it may be because I dislike the shape of Mr. Brown's nose.

Dr. Ernest Jones defends this theory with great acumen, and seems to regard it as of universal application. The many intractable instances, however—the many pleasant things forgotten or half forgotten, and the many painful things remembered—rush to one's mind and prevent one from accepting the theory as universally valid. But if it is true as a complete explanation of *some* cases of forgetfulness, and if it is true as a general *tendency*, then its bearing on educational theory is momentous. If disagreeable associations make for forgetfulness and agreeable associations for remembrance, then the father of Benvenuto

Cellini, who called his little son's attention to a salamander crawling out of a fire and immediately boxed the lad's ears to impress the event upon his memory, was acting on a false theory. Instead of increasing the chances of the event being remembered he was increasing the chances of its being forgotten.

This principle seems to explain the fact that certain children learn more readily under some teachers than under others. They learn with ease under those they love, with difficulty under those they hate. It explains the meagre results of dull mechanical grind. Make a thing disagreeable and you go a long way towards making it forgettable.

Some of the new psychologists seem to claim that many cases of backwardness and some cases of apparent mental deficiency are due to inhibitions. The stupidity is not natural but acquired. The children are intelligent enough, but their intelligence fails to function because of certain impediments imposed by bad training at the home or the school. These impediments are emotional rather than intellectual; and the first thing to do in dealing with a stupid child is to remove the emotional impediments. How this is to be done I cannot pretend to say. But if it can be done, and the child becomes bright and intelligent in consequence, a Utopian prospect

opens out before us. Stupidity is to become as rare as smallpox. But this optimistic view cannot be substantiated. Regarded as a general principle, the theory is wild and chimerical, and is indeed at variance with such obvious facts as the observed constancy of the Intelligence Quotient, and the demonstrated heredity of talent. If, however, it explains even a small percentage of cases, as it probably does, it must ultimately modify our methods of dealing with children suspected of natural dullness or of mental deficiency.

The psycho-analyst's favourite stand-by as an explanatory principle is the Œdipus complex. It is brought in to explain an extraordinary number of phenomena. It tells us in effect that affairs of the heart begin in the cradle, and that the first act of love's tragedy (or comedy) is played in the nursery, with father, mother, and baby in the chief rôles, the nurse serving as an understudy to the mother. The three essential elements are there—the two lovers and the *tertium quid*. The child is the hero (or heroine) of the play, for it is he who loves the mother, or she who loves the father, and the other parent is the hated rival. It is the child who suffers the bitter pangs of jealousy, and sometimes, though not often, the sorrow of an unrequited love. The position is complicated by the fact

that the boy both loves and hates his father at the same time, and the girl has the same conflicting feelings towards her mother. And like most lovers they are fickle. They transfer their affection from one parent to the other or back again at different stages in their emotional development, so that at one age they may be loving a parent of the same sex and at another a parent of the opposite sex.

The psycho-analysts have often been taken to task for ascribing to the innocent minds of children thoughts and passions which do not emerge till adolescence is reached. And if the psycho-analysts meant that the boy desired to possess his mother physically the criticism would be amply justified. But they do not mean that. Their words are not to be interpreted grossly. They refer to a drama which has little to do with external action ; for it is a drama of the soul, and not so much of the conscious part of the soul as of the unconscious part. And for that reason the name *Œdipus* is perhaps misleading. For *Œdipus* slew his father without knowing that it was his father, and certainly without hating him ; and he married his mother not knowing that she was his mother, and apparently without loving her. At any rate, it is unlikely that he loved her ; for she was not his own choice, but was given away with the kingdom which he won

by solving a mental test—the riddle of the Sphinx.¹

The eternal triangle has been brought in to explain that fear of the dark by which all children seem at some time or other to be assailed. The custom has been to seek the explanation of this fear in the remote past. The fear is vestigial. There was a time in the history of the race when there was very good cause to fear the darkness. The fear gave rise to caution, and caution had survival value. The explanation seemed adequate enough until the new psychologists came along and assured us that it was quite wrong. The fear of the dark, according to them, is really one of the many manifestations of the Œdipus Complex. The child is jealous and wants to be taken downstairs to his father and

¹ The classical myths are extremely useful: you can make them mean anything you please. A quarter of a century ago the fashionable theory was the solar myth theory. The legends were nearly all solar myths. Œdipus was then the sun, just as truly as Apollo was the sun. His father Laius was the Darkness, and his mother Jocasta the Twilight—the twilight of the morning, which is Dawn, or the twilight of the evening, which is Dusk. The sun was apparently regarded as a sort of egg which came from the union of the Darkness and the Dawn. Jocasta thus became the mother of Œdipus, who, when he had grown to his full strength, slew his father (Darkness), and later in life married his mother, who by this time had become the Dusk. Quite simple!

mother ; or he wants one of them with him in his bedroom. He or she longs to be petted by the beloved parent. The fear of darkness is one of the many devices of the unconscious for indulging the secret desires of the heart.

The same type of explanation is brought in to account for the misconduct of children at school. They do not consciously wish to be naughty ; they often do not know that they are naughty ; they are simply obeying a blind instinct. When a boy worries his teacher he is often working off the suppressed irritation he feels against his father. He cannot vent his spleen at home, either because of the respect and affection that are mixed with his annoyance, or because the home discipline is so severe that he fears the consequences. So he vents it on his teacher. Or, again, the boy may be mischievous simply because he desires the attention of his teacher. What the primitive child nature, represented by the unconscious, hates more than anything else is neglect. The strong egoistic impulse of the child forces him to do things which will centre interest and attention in himself. It pushes him into the limelight. Even though his skin should suffer, there is an inward satisfaction which is to him an ample reward. And the more the child admires his teacher the more he wants his teacher to take notice of him. So if he cannot

secure his attention by being good he will secure it by being naughty. We thus arrive at the paradoxical conclusion that a child annoys his teacher because he loves him.

The teacher cannot, in fact, fully understand the behaviour of the child at school without first understanding the behaviour of the child at home. For it is in the home, in the family life, that the roots of his temperamental troubles lie. The teacher would be well-advised therefore to read and to study some such book as Mr. J. C. Flugel's on *The Psycho-Analytic Study of the Family*.

Nature has been described as the greatest of Matrimonial Agencies. So she is; though she does not seem to be over-particular about the marriage lines. And the reason why we feel a little uncomfortable in contemplating an excess of affection for a person of the same sex is not that the affection is in itself morally wrong, but that it is out of joint with the project of the great Matrimonial Agency. It has all the glamour and illusion of romantic love, without its ulterior purpose. It rests, in fact, like all romantic love, on a misunderstanding—an intellectual blindness. The educationist is most likely to meet this problem in girls' schools, where a girl is specially liable to have a "grand pash on" one of the mistresses or one of the senior scholars.

As a rule the malady cures itself ; but the cure can be accelerated by a sensible treatment from the adored one. If, however, the adored one is self-centred, she probably likes the adoration she receives, and would be sorry to see it diminished. She thinks that at last she is understood. The truth is that at last she is misunderstood. And she should help to remove the misunderstanding. The Duke of Wellington in his old age was one day standing on the pavement near Apsley House waiting to cross the street. A passer-by, recognising him, took his arm, piloted him across, and before departing expressed his pleasure at being able to render a service to "the greatest man on earth." And the Duke replied : "Don't be a d—d fool." That is what the teacher should tell the infatuated girl ; though I would advise a different terminology.

The word "love" is manifestly used in a variety of meanings. In the pages of Byron¹ it stands for one thing ; in the pages of Browning, for something very different. A mother loves her child, a man loves his friend, a lover loves his lass, a scholar loves his books, a saint loves his God. They are all different loves, and there are still other classes, and still further

¹ Byron says somewhere that the only difference between a temporary attachment and a life-long devotion is that the temporary attachment lasts longer.

differences within each class. To the psychoanalyst, however, there is only one kind of love. To him all love is lust, lust in various stages of sublimation. How far it gets from its primal form I cannot say. Does it ever reach the Charity of which St. Paul speaks in the thirteenth chapter of his First Epistle to the Corinthians? If so, it is so sublimated as to be transformed—as to become virtually something else. And although the psychoanalyst, with remedial aims kept steadily before his eyes, is no doubt amply justified in regarding love as a brute instinct, may not others with different aims in view be equally justified in regarding *caritas*, pure, disinterested love, as the elemental stuff of which all varieties of love are corrupt, degraded, or adulterated forms? Is the dragon, as in the fairy tale, a prince under enchantment; or is the prince a “sublimated” dragon? In any case the prince is a fact to be taken into account.

CHAPTER X

MIND AND METAPHOR

Hamlet. Do you see yonder cloud that's almost in shape of a camel ?

Polonius. By the mass, and 'tis like a camel, indeed.

Ham. Methinks it is like a weasel.

Pol. It is backed like a weasel.

Ham. Or like a whale ?

Pol. Very like a whale.

Ham. They fool me to the top of my bent.

SHAKESPEARE : *Hamlet.*

To the ordinary man psychology is something to be found in printed books. And if by psychology is meant the science that is taught under that name at the great seats of learning, the ordinary man is right. In its broad outlines and its essential features it can be found in a few namable books. For, if we leave out of account the new adventure into the realm of the unconscious, the psychology of to-day has been made and moulded by quite a small number of master minds. When we study it we are looking at a certain body of facts through the eyes of Ward, James, Stout, and McDougall. The words with which we talk about it are their words ; the

framework of our thoughts about it is of their making ; the postulates and categories and classifications into which we cast our ideas about it were first shaped and fashioned by these few thinkers.

It is true that they had the products of other minds to work upon ; that Aristotle and the Schoolmen and Locke and Berkeley and Hume and many another had already handled the raw material and had already mapped out a rough chart of the human mind. But it is also true that Shakespeare did not really create his characters—did not beget them wholly out of his own experience or his own imagination, but rather took them out of Plutarch or Holinshed or some forgotten writer of the past, and re-created them for our abiding profit and delight. So that now we cannot see the Antony of Plutarch : we can see only the Antony of Shakespeare ; and when we fall into vacillating or melancholy mood, when the native hue of resolution is sicklied o'er with the pale cast of thought, or when this goodly frame the earth seems to us a sterile promontory, the very words that leap to our lips are those of Hamlet—Shakespeare's Hamlet, not the Hamlet of Saxo Grammaticus, or of Thomas Kyd, or whoever it was that first conceived the melancholy Dane.

In like manner, when we psychologise our

thoughts run along grooves worn out for us by William James or some other worker in the same field, and issue in words and phrases that he has fashioned for us. Others, no doubt, will arise, a new generation of psychologists, who will redigest the doctrines current to-day, and give us both a new science and a new terminology. Indeed they cannot do one without the other; for, as somebody has wisely said, a science is nothing but a well-made language. For the present generation, however, the mother tongue of psychology is the tongue of William James. And when the psycho-analysts come along with their strange terminology—their “unconscious” and “foreconscious,” their “complexes” and their “affects”—we have to translate their teachings into our mother tongue before we can grasp them with any degree of clearness and completeness. We have to translate “psyche” into “mind,” and “affect” into “feeling,” and “fantasy” into “imagination,” and “libido” into “conation,” and “complex” into “apperceptive mass.” And even then I have no doubt we have translated them wrongly. The terms overlap but do not coincide. Freudian psychology is to all intents another psychology which does not mix well with traditional psychology, but stands side by side with it, cold and unpromising.

The grooviness of current psychology is brought home to us when a book appears which speaks a new language and runs on lines which form a new pattern. This is a rare event. The most recent example is Professor Spearman's book on *The Nature of Intelligence and the Principles of Cognition*. Dr. Spearman has here given us not a new book on psychology, but a new psychology—a new psychology of the intellect at any rate. He has formulated laws which are not to be found in the text-books of the Ward-James-Stout psychology, but have been arrived at by a fresh analysis of the concrete facts. He has, in fine, given us another pair of eyes through which we may examine the elusive phenomena of the human mind.

The same fact—the fact that a few outstanding minds impose and impress their own modes of thought upon the accepted body of doctrine—is true of physical science; though to a lesser degree than of the science of mind. For physical things, and physical happenings, and physical laws can all be conceived in terms of matter and motion. We can easily conjure up things moving about in space. We can form a mental picture of what is taking place among the invisible atoms and molecules of which the material world is composed. We can go further, and make working models of them. It is only when our thoughts

can be translated into things that the thoughts themselves become absolutely crystal-clear—things that stand side by side in a spatial world. We think in spatial terms. We even think of time in spatial terms. On the screen of internal sight we stretch it out in a straight line, and what is before or behind in time we put before or behind in space. Our very clocks are mere mechanical devices for turning time, which we apprehend so vaguely, into space, which we apprehend so clearly.

Now comes the crux. The human mind has no spatial determinations at all. It is an object in time, but it is not an object in space. It has a history, but it has no geography. We cannot make a model of it ; we cannot make a picture of it ; we cannot even make a rough schematic diagram of it. True, we think of it as occupying a position in space—somewhere within the body. But even so, nobody really believes that its relation to the body is anything more than a functional relation ; and nobody can be quite sure where that function goes on. Although modern science informs us that we think with the cortex or rind of the brain, there are some who suspect that we think with the whole body. Aristotle placed the seat of the mind in the heart. Descartes placed it in the pineal gland, and a certain Chinese philosopher has placed it in the stomach. My

own little daughter at the age of five volunteered the information that she had discovered where she did her thinking. She assured me that she thought with her ears. Viscount Harberton, in his book *How to Lengthen our Ears*, tells us that thinking with the ears is an asinine form of thought common among men of learning. So it is clear that there is no unanimity of opinion as to where our thinking is carried on.

Since the mind is immaterial and does not occupy space, and since we can think clearly in spatial terms only, we always think and talk about the mind as though it were what it is not—a material object. In other words we use simile and metaphor. We either say or imply that the mind is like something else, a field, or a muscle, or a flower, and then we proceed to argue about it as though it actually were a field, a muscle, or a flower. We begin right and end wrong. Instead of assuming a partial resemblance (which is legitimate) we assume a complete resemblance (which is illegitimate and mischievous). To assume some sort of resemblance is not only legitimate but inevitable. In simple ways or subtle, everybody psychologises; everybody has views about the workings of his own mind. And indeed everybody has psychologised ever since the race began to think at all. When the first psychologist, who probably dwelt among the

trees, tried to communicate his meditations, ~~he~~ made use of metaphor. He could not do otherwise. Besides, there is abundant proof in the class of words that has always been used to describe the more obvious functions of the mind. They are metaphorical through and through. And although much of the metaphor is now what the grammarians describe as "dead" it was originally very much alive; for it was deliberately devised to express what was otherwise inexpressible.

One of the commonest modes of conceiving a mental process is to conceive it as an act of grasping. We grasp a person's meaning; or, to put the same thing into Latin, we apprehend or comprehend his meaning. The mind is assumed to be a sort of hand, and its essential function is to lay hold of the things presented to it. To perceive is to seize an object with the mind as I seize a ball between my fingers and my thumb. And to conceive is again to seize—a meaning which has here been enlarged and enriched by reference to biology. An intelligent person is literally a person who can gather together the fragmentary bits of experience and reduce them to a rational whole.

There is yet another series of words all based on the fundamental assumption that the mind is a sort of building—an edifice or structure. When

we talk about edifying or instructing we imply that the mind is a sort of house ; and when we talk about cultivating it we imply that it is a sort of garden. The similitudes are endless. The mind is made to ruminate like a cow, to brood like a hen, to digest like a stomach, to reflect like a mirror, or to ponder like a pair of scales. And so loose is our grip of the mind that we gladly accept any analogy that holds out a handle by which we may seize it more firmly ; so vague and vacillating is our conception of mental phenomena that we welcome any figure of speech that offers illumination and stability.

A favourite analogue is the eye. All the cognitive processes, all the acts of knowing as distinct from feeling and willing, are regarded as optical, and the whole intellect is often looked upon as one huge eye. Indeed the sentence I have just written illustrates this visualising tendency. The mind looks at things in a certain light, it sees the meaning of a sentence, it spreads its opinions in front of it as a panorama and calls them its views.

Perhaps the most puzzling metaphor of all appears in the word *understand*. In at least three Indo-European languages has a word whose root meaning is " to stand " come to mean " to comprehend, to know." It has happened in the Greek word *ἐπίσταμαι*, in the German word

verstehen, and in the English word *understand*. Professor M. Bréal¹ explains the metaphor by pointing out that the earliest arts were not taught by books but were practical arts, in which the first requisite was to learn the proper attitude—to learn how to stand. To hurl the javelin, to wield the club, to attack and to defend, to tame horses and to strike fire from flint—all these required that a man should hold himself properly. When he could do this he knew; at least he knew all that in those days was considered worth knowing. So far Professor Bréal. We may, however, though perhaps somewhat precariously, carry our conjectures further back and picture the wisest of our ancestors coming down from the trees and learning to stand on their legs. Those who stood the best were those who understood the best.

It is not only the layman who takes refuge in metaphor; the expert psychologist does so, too. The *tabula rasa* theory of mind—the theory that the mind is a piece of blank paper on which the senses write—has had a marked influence on the trend of psychological theory. The Spencerian theory of evolution, which sees the universe develop through the aggregation and redistribution of primordial atoms, gave rise to the Spencerian system of psychology—an atomic system

¹ *Semantics*, pp. 193-4.

in which mental atoms (which Spencer himself calls "nervous shocks") become the counterparts of the physical atoms of the material world. So potent is the force of analogy. Frœbel's celebrated plant metaphor has had a profound effect, mainly beneficent, upon the modern education of young children. The influence of metaphor is not, however, always beneficent, as may be seen from the instances given by Sir John Adams in his book on Herbartian Psychology. The truth is that in every metaphor there lurks the danger of a false analogy—the danger of its being pressed beyond its legitimate limits. Moreover, it can merely suggest hypotheses: it can never prove them. It can illustrate, but it cannot demonstrate.

Were not most of our metaphors dead it would be impossible to write a page of social or mental science without converting the page into a battleground of implacable contradictions. Nor should we fare any better if we took up that form of sustained metaphor which we call allegory; for by extending the area of implied similitude we should merely have multiplied the points of false analogy. We should, in fact, have achieved a tremendous misfit, and should have got no nearer to a true psychology than John Bunyan did in his *Holy War*.

If it is permissible, within the limits of con-

sistency, to conceive the *mind* in any way we please, why should one way of conceiving it be better than another? Why should the common-sense psychology that is embodied in the vulgar tongue be any worse than the psychology of the psychologists? And why should the functional psychology that at present holds the field be considered better than the psychologies of the past, or indeed better than the other psychologies that compete with it in the present—the behaviourist psychology of Watson, the psycho-analytic psychology of Freud, the *Gestalt* psychology of Wertheimer, or the relational psychology of Spearman? The answer is that it can only claim to be better if it is more fruitful—if it not only fits the obvious facts but leads to the discovery of other facts which are not obvious. Let us take an example from physics. It is generally believed (the strict truth of the tradition need not concern us) that Newton discovered the law of gravitation through seeing an apple fall. Other people had seen apples fall before, had found nothing extraordinary in the event, and had drawn no deductions from it. Even if they arrived at the general statement that bodies near the surface of the earth tend to fall towards the earth, they could not use the generalisation either for explanatory or for exploratory purposes. It merely summed up facts which they

knew before. It did not, so to speak, get outside its own skin. The great advance was made, not when Newton saw with his eye that the apple had fallen to the earth, but when he saw with his mind that the earth had fallen to the apple—that both had rushed towards their common centre of gravity. That was the concept that grew like Jonah's gourd until it had embraced the whole universe. The simple and inexorable truth that the earth cannot attract the apple without the apple at the same time attracting the earth, that there can be no action without an equal and opposite reaction, constitutes Newton's third law of motion—a truth which cannot be regarded as having even yet penetrated the popular mind. It is difficult to convince a brick-layer that when he pushes a wall, the wall also pushes him (I assume of course that it is a pre-war wall), and yet the principle is of the very essence of scientific theory.

Why is it that the faculty psychology is obsolete everywhere except on educational platforms, where nothing is obsolete? There is no fallacy in saying that we have faculties. It is as certain that we have them as it is that we can lose possession of them. The only reason for discarding the doctrine of faculties is that it explains nothing and leads nowhere. It explains nothing; for to say that we remember certain things and

forget others because we possess in limited measure the faculty of memory is merely to say the same thing twice : it is like saying that some people are born blind because they come into the world devoid of the power of vision. It leads nowhere ; when it does lead it misleads—leads to the wrong conclusion. For the theory implies that a faculty is a unitary function of the mind, that grows as a whole, is trained as a whole, works as a whole, and decays as a whole. All of which is demonstrably false.

Metaphor is an excellent horse to ride ; but if he gets the bit between his teeth he is liable to carry the rider into wild domains of fantasy and falsity. One of these excursions will be described in the next chapter.

CHAPTER XI

FORMAL TRAINING

It would be utterly contrary to the beautiful economy of Nature, if one kind of culture were needed for the gaining of information and another kind were needed as a mental gymnastic.

HERBERT SPENCER : *Education*.

And though it is quite immaterial to the theory of teaching what subject has to be taught, it is not immaterial what subject is taken as the most perfect illustration of the theory. Enough has been said to show that language, and Greek, and Latin, are the most perfect practice-ground in the world for training mind.

EDWARD THRING : *Theory and Practice of Teaching*.

What could call into play more of a boy's faculties than orchard-robbing? Almost all the virtues are trained in the exercise of this vice.

JOHN ADAMS : *The Herbartian Psychology Applied to Education*.

It sometimes happens that one section of the educational world is torn by eager controversy over some apparently vital problem while other sections know nothing about it; they are unaware of the controversy and ignorant of the problem. The formal training controversy is a

case in point. It has been almost entirely carried on by theorists. Administrators did not know that there was anything to argue about, and teachers as a body have only just realised that there has been a battle now that the first stage of the battle is over. It was in the last decade of the nineteenth century that the problem began to take definite shape, and it was in the first decade of the twentieth century that the most strenuous efforts were made to solve it. A complete solution has not yet been reached.

What then is the problem? It is this: Suppose a boy is engaged in studying, say, the fifth proposition in the first book of Euclid. We assume that he is gaining educational benefit thereby. What is the nature and extent of that benefit? Is it merely an improvement in his ability to reason rightly about isosceles triangles? Or does its effect extend farther? If so, how far? Does it reach his ability to reason about all kinds of triangles? About geometrical figures generally? About all mathematical relationships? Does it go still farther afield and improve his ability to reason about anything and everything, from racing to religion? Finally, does it affect the whole field of the mind's operations, strengthening its powers and enhancing its efficiency in every direction?

The problem is sometimes put in other ways.

Is mental power gained in dealing with one kind of material available for dealing with other kinds of material? Is it the form of the mental process that is important from the point of view of training, or does its content count as well? Is there a transfer of training from one specific mental function to another? Does the disciplinary influence of a particular act of the mind overflow the boundaries of that particular act? To put it very crudely, when a fact is taken into the mind does it stretch the mind merely to the extent of enabling it to take in that fact, or does it stretch the whole of it, or at least a large part of it? To put it briefly, is mental training specific or general? If general, what is the degree of generality?

The various theories held may be reduced to three—general training (or whole-mind training), faculty training, and specific training; the first two being varieties of the doctrine of formal training. If thirty years ago an educationist were asked which of the three views he held, he would accept the first with hesitation and the second with confidence; the third he would violently repudiate. The second of the three theories, the faculty theory, was indeed exceedingly popular in the second half of the nineteenth century; and it is curious to reflect that the theory most confidently held then is the one most

hopelessly discredited now. The belief was that the mind was made up of a number of faculties, such as perception, memory, imagination, reason, and so forth. All the particular mental acts that could be called by the name imagination were thought to be so similar in kind as to be one and the same act; it was only the content that was different: the act was the same. If this were true it would follow that each act of imagining would train imagination as a whole.

About the year 1890 a few authoritative voices were raised against the faculty doctrine. Professor Ward struck a note of warning in the *Journal of Education*; William James in his *Principles of Psychology* denied that memory, in the sense of brute retentiveness, could be improved by practice; and some years later Professor Adams trenchantly criticised the formalist position in his book on *Herbartian Psychology*. These were at first mere voices crying in the wilderness. But others caught the sceptical note and sounded it louder than its originators. Some denied that there was any spread of training at all; others admitted the possibility of spread but denied that its area was co-extensive with a faculty. All the doubters emphasised the lack of evidence. Just as Weismann disturbed the complacency of biologists by asserting that there was no evidence of acquired characters

being transmitted to the offspring, so these reformers disturbed the complacency of educationists by asserting that there was no evidence that the exercise of any specific function of the mind had a general training effect. In each case an attack was made upon a citadel believed to be impregnable.

The problem thus definitely raised had to be boldly faced. The attempts made to solve it took two forms—argument and experiment. The former succeeded (sometimes) in illuminating and defining the problem; the latter alone brought it perceptibly nearer to a solution.

Arguments on the matter have been vitiated by a tendency to which all who argue about the mind and things mental are peculiarly, and indeed inevitably, liable. I have tried to show in the preceding chapter that if we are to think of the mind at all, we must think of it in terms of matter and movement; we must find something in the material world to which we regard it as analogous. In other words, we must use metaphor. We say or imply that the mind is like something else: digestive like a stomach, illuminative like a lamp, receptive like a reservoir, reflective like a mirror, active like a hand, and so forth. And in the contemplated scope of our analogy we are generally right. The mind *is* like all these things—in some respects, but it

is very unlike them in others. And the points of dissimilarity are much more numerous than the points of similarity. When therefore we begin to draw inferences from the analogue we are peculiarly liable to go astray, and are utterly unable to convince an opponent who has happened to adopt a different analogy. Thus, for instance, one will assert that just as grasping is an act of the hand so observing is an act of the mind, and as the power of grasping can be cultivated independently of the thing grasped, so can the power of observing be cultivated independently of the thing observed. Nay, says another, the mind is a garden that must be cultivated piecemeal. The cultivation of one patch of the garden in no way affects the fertility of the rest of the garden. And thus the arguments proceed at cross purposes and never join issue at a common point. The truth is, the mind is a thing *sui generis* : it is quite like nothing else in the universe ; and to study it profitably we must treat it as a unique datum and accept no theory suggested by analogy until that theory has stood the test of direct observation and experiment.

Argument in itself, therefore, has not led us very far. Fortunately there is another method—the method of experiment. The first to apply it to this special problem was William James.

He wished to test the faculty theory as far as memory was concerned. And his method was so simple that any reader who cares to take the trouble may verify the results for himself. Dr. James found after eight days' testing that he was able to learn by heart Victor Hugo's *Satyre* at an average rate of a line in fifty seconds. Then he began to train his memory on *Paradise Lost*, working for about twenty minutes a day and learning the entire first book in thirty-eight days. After this training he went back to Victor Hugo's poetry and found that he now memorised it at the rate of a line in fifty-seven seconds—a result contrary to that which the popular view would lead one to expect. This experiment has often been repeated by different persons with different material, and invariably with the same result; if there is improvement at all, it is so slight as to be negligible. When deterioration seems to ensue, as in William James's case, it can generally be explained by fatigue or a lowered state of health. It is essential to the experiment that the test material and the training material should be different in kind. In the above case, for instance, French poetry formed the test material and English poetry the training material. For nobody doubts that the memory can be stored, and that a growing familiarity with the works of a particular poet would gradually provide the

mind with a stock of recurrent words, rhymes, phrases, and images which would render easier and easier the memorizing of his poetry. But storing the memory is not training it.

Children's memories are not so easy to test in this way as adults', for one has to allow for brain growth and to guard against training in the test material. Indeed, for testing groups of children a special technique has been found necessary; and nobody has contributed more to the perfecting of this technique, or applied it more skilfully, than two English experimenters, Mr. W. H. Winch and Dr. W. G. Sleight. The former found some degree of transfer; the latter found none. In America and Germany the results have been equally contradictory. It seems as though transfer of training sometimes takes place and sometimes does not. The fact that it does in certain conditions occur may be considered as established; and the importance attached by the experimenter to its amount and scope often depends upon his attitude of mind when he set forth on his quest. The rustic who went up to London believing that its streets were paved with gold would give a very different account of the wealth of the metropolis from that of a man who expected to find no gold there at all.

What precisely are the conclusions that the experimental evidence forces us to accept?

They are these: That specific mental training has a certain measure of general effect; that the amount of this general effect is by no means great—it is much smaller than was believed by the educationist of twenty years ago, and much smaller than is believed by the layman of to-day; that the amount of transfer from one mental function to another is as a rule proportional to the similarity of the material dealt with and of the mode of dealing with it; that separate acts of observing are not necessarily similar acts, and there is not necessarily an overflow of training from one to the other (the same is true of the other faculties); and that, although we do not understand fully the conditions in which transfer takes place, it is probable that it depends largely upon the engendering of favourable habits and attitudes of mind and on the conscious or sub-conscious formation of ideals.

The doctrine of faculties then is professionally dead—or at least it ought to be dead, considering the wounds it has received. Even the popular memory trainer has ceased to advertise his system as memory training; he now calls it mind training. Abandoning the faculty theory in favour of the mind theory, he has become a “whole-hogger.” The creed of the whole-hogger is nowhere more clearly and emphatically stated than by Mr. Arnold Bennett in his little book

on *Mental Efficiency*. He implies that anything will do to train the mind with so long as it is hard enough—so long as it will brace the nerves and harden the muscles of the mind that wrestles with it. But this theory has no more foundation in solid experience than the faculty theory. If we must argue about the mind in terms of the body, it may be admitted that a certain amount of exercise is necessary to maintain fitness; but dumb-bell exercises are neither the only nor the best means of doing this. Nor are they of any use in developing specific kinds of skill. A carpenter gets as healthful exercise in making a table as in swinging Indian clubs. And he has the additional advantage of possessing a table.

The change brought about by the controversy may be understood by conceiving the two broad parties—the formal trainers and the specific trainers—engaged in a tug-of-war. Neither team has succeeded in pulling the other wholly across the line; but the specific trainers came very near it. The middle of the rope, which at first was well over the formalist side, is now distinctly over the other side. For the “specific” team has had the greater weight of facts on its side.

For the last few years there has been a pause in the controversy. It is not a peace: it is a truce—an armistice. It is realised by both parties that concessions have to be made. It

is realised that it is no longer a question of transfer or no transfer; but rather a question of when transfer takes place and how much. So the armistice is due to the fact that the opponents need time to rearrange their forces and to sharpen their swords—or rather, to refine their instruments of measurement. For the discrepant results of the past have mainly arisen from bad measurement (bad testing, bad examining); and the attention of the researchers has for the moment been diverted towards improving the technique of testing. But the diversion is only temporary. Research will return to the problem of formal training, and return with a far better equipment, and a far better chance of reaching a solution.

There are two recent developments in psychological theory which give new zest to the inquiry and suggest new lines along which a solution may be sought. The first of these is the *Gestalt* psychology, or the psychology of form; and the second is the system of psychology set forth by Professor Spearman in his book *The Nature of Intelligence and the Principles of Cognition*. The *Gestalt* psychology lays stress upon the fact that the unit of experience is always a system—a whole, which may perhaps, by subsequent analysis, be split up into parts, but which is always something more than the sum of those

parts. The parts form a pattern, and the pattern is everything, or very nearly everything. A piece of wood which forms the leg of a stool is a very different thing from the same piece of wood when it has ceased to be the leg of a stool. The stool is more than the bits of timber of which it is built. A melody is more than the notes of which it is composed. When it is sung in a different key the absolute pitch of every note is changed, and yet the melody remains the same. The notes are of secondary importance; the tune is of primary importance. The form is remembered, the contents forgotten.

The significance of form is again illustrated by a well-known experiment. A hen is taught to peck its food off a piece of dark blue paper in preference to a piece of light blue paper which lies beside it—taught to choose by colour, not by position. Then for the light blue paper is substituted a blue paper which is darker than both. The hen now chooses, not the same paper as before, but the darker one. She shows her Oxford bias not by sticking to the Oxford blue but by selecting the darker of the two blues. She perceives a relationship, and the relationship has for her greater practical import than the terms between which the relationship holds.

These simple principles, obvious as they are, have been shown by Professor Koffka and others

to give a ~~new~~ interpretation to the natural history of the human mind, and to have an important bearing on the psychology of learning.

Closely allied to the *Gestalt* psychology is the system set forth by Professor Spearman in his book on *The Nature of Intelligence and the Principles of Cognition*. He there attempts to reduce all the mental phenomena that are concerned with knowing to ultimate elements and ultimate laws—to do, in fact, for psychology something like what Newton did for physics. And there is little doubt that the laws he has formulated do not only simplify and explain what we already know about mental processes, but give promise of leading to new discoveries. And this, as I have shown in a previous chapter, is the touchstone by which the value of a system of thought is ultimately to be tested. It augurs well that Spearman's theories are far more closely in touch with the mass of experimental work going on in the psychological laboratories and in the schools than is any other psychological system.

What is specially pertinent here is that Spearman's theories give a new line of departure for investigating the problem of formal discipline. Let me exemplify by quoting his second and third principles of cognition :

The Education of Relations : The presenting of any two or more characters tends to evoke

immediately a knowing of relation between them.

The Eduction of Correlates: The presenting of any character together with a relation tends to evoke immediately a knowing of the correlative character.

The meaning of the eduction of relations is quite clear. It was the principle on which the Oxford hen dieted herself. The meaning of the eduction of correlates is not so clear. Professor Spearman uses this example: "If the idea of *good* and that of *opposite to* are presented, there can out of these be obtained the correlative idea of *bad*." Here we have two types of mental process—two mental acts or mental functions—which are simple and ultimate. We cannot analyse them any further. But the old-fashioned faculties of observation, reasoning, and what not, were also supposed to be simple and ultimate—irreducible to any simpler elements. The supposition, however, has been proved to be false. And the questions we used to ask, and ask fruitlessly, about the faculties, have again to be asked about each of Spearman's principles—and now asked with a better prospect of getting a clear definite answer. The fundamental question is: Is the eduction of relations, or the eduction of correlates, a simple form of mental activity which can be trained independently of the medium in

which it works ? To use Sir John Adams's metaphor, is it a sort of knife which may be sharpened on any whetstone without taking character from the whetstone ? If the material itself must always be taken into account, then the Spearman doctrine no less than the *Gestalt* psychology suggests that it is the pattern into which the material falls rather than the material itself which gives a clue to the mediating factor in the transfer of training. A long vista of experimental work is here opened out.

What has been the effect of the discredit into which the old theory of formal training has fallen ? How much influence has it had on the teaching and the curriculum ? As a change of creed consciously held, very little ; as a subtle pervading influence, very great. Formalism never brought a new branch of study into the curriculum ; it merely kept it there after it had got in, and kept others out on the ground that they were unnecessary. Its tendency has always been to restrict and conserve the curriculum. The revolt against formalism, on the other hand, has tended to enlarge the boundaries of the scheme of studies and bring it into touch with life at as many points as possible. For if any one subject can cultivate every feature and function of the mind, more than that one is more than enough ; but if the training capacity of each particular

subject is strictly limited to that subject, then the more subjects we have the better. The recent multiplication of school studies is due partly to the utilitarian bias of the modern view, and partly to the weakening of the resistance that formalism was wont to offer to the intrusion of new-comers. For the plea of vicarious learning will no longer stand. We cannot nowadays believe—to misquote Walter Bagehot—that the best way to write good English is to learn to write bad Latin. We are forced to believe that the best training is an *ad hoc* training.

If this were all—if the new doctrine of qualified transfer merely crowded the curriculum—it would prove a doubtful boon. But it is not all. Modern research, even though it has not confirmed the optimistic view of the old formalist, has at least demonstrated the possibility of transfer; and, better still, it has revealed to us some of the agencies by which this transfer is effected; it has shown us that we cannot rely upon the inherent brain-stretching qualities of any given subject (if such qualities exist), but must so teach the subject that the real generalising factors are brought into play: such factors as habits, attitudes, ideals, and modes of procedure. And the more recent tendencies in psychology have pointed out the importance of the form that belongs to the subject-matter known as dis-

tinct from the form that belongs to the knowing mind. Although much research has yet to take place in the way of identifying these vehicles of transfer, we already know enough to keep us on the right road. We see the influence of our recently acquired knowledge in the increasing importance attached to private study. Too often our pupils leave school knowing many things, but ignorant of the most important thing of all—how to learn, how to study, how to find out things for themselves.

CHAPTER XII

IMAGINATION

“IMAGINATION” is a word that is bandied about somewhat freely by educationists at conferences and elsewhere. The fairy-tale is held to “develop the imagination”: or it is not. To one speaker imagination is the power of synthesis; to another it stands for a certain vagueness that may be a relief from accuracy.

Among the more modern psychologists, Galton first pressed the claim of imagination. “I believe,” he writes in his *Inquiries into Human Faculty*, “that a serious study of the best method of developing and utilising this faculty, without prejudice to the practice of abstract thought in symbols, is one of the many pressing desiderata in the yet unformed science of education.” Dr. Horne, in his *Philosophy of Education*, quotes from an address of President Eliot’s:

“The imagination is the greatest of human powers, no matter in what field it works—in art, or literature, in mechanical invention, in science, government, commerce, or religion—and the

training of the imagination is, therefore, far the most important part of education."

It is true that Dr. Horne himself dissents from that conclusion and gives the premier position to the training of judgment, and it is true that there is scarcely any form of human ability which has not been claimed by someone or other to be the one supreme human faculty; but imagination seems to receive an inordinate share of this kind of laudation. Tyndall sang its praises as an instrument of scientific discovery, and Goschen wrote a book to show its importance as a medium of general culture.

The first thing that strikes the discriminative thinker is the extreme elusiveness of the term. School reports often contain the phrase, "More attention should be paid to the cultivation of the imagination," but the meanings attached to the injunction are many and various. Does imagination merely mean the having of mental images? And must the image be of a directly representative type, like the imagined notes of a song or the mental picture of a ship, a bird, or the face of a friend? Or may symbolic images be included, such as the silent speech that usually accompanies thinking? In the latter sense of the term imagination is mentally ubiquitous; in the former sense we have Galton's authority for asserting that Royal Academicians may be entirely devoid

of imagination (a statement we can readily believe), and that scientists have it in very scanty measure.

But it may reasonably be urged that imagination means, not merely the mental imagery as such, but the imagery together with the thought with which it is loaded. The unit is not the image, but the idea. Imagination on this view becomes equivalent to ideation. But no human being who has arrived at school age can remain awake without ideation of some sort going on. Even in perception the mind supplies its quota of ideas. Taking imagination to imply ideas which are not dependent for their existence on the present stimulations of sense, we have to distinguish between two kinds, the productive and the reproductive. In reproductive imagination the mind recalls past experiences as a whole. There is no analysis, no reconstruction. It is mere memory. In productive imagination, on the other hand, the mind forms new combinations; it shuffles the sensory material and rearranges it so as to form new wholes. If in imagination one hears the burden of a familiar song, it is a case of reproductive imagination; if one composes, "in his head," an entirely new song, it is a case of productive imagination. We must further distinguish between the productive imagination which merely builds up complex images suggested

by another mind, and the productive imagination which originally gave birth to these complex images. Dickens exercised his productive imagination when he wrote *Oliver Twist*, and we exercise our productive imagination when we read it. We have to build up the various scenes and incidents out of bits of old memories of our own. But what a difference! Dickens's imagination was creative; ours is merely constructive.

Even creative imagination is of two essentially different kinds. Dickens created novels; Dalton the atomic theory. Turner created pictures; Watt the steam engine. One is artistic; the other scientific. One deals with fiction, the other with fact. Artistic creation is subject to no external restraint. Beyond logical coherence and a general plausibility no conformity with fact is demanded. The canons of criticism that bear upon scientific imagination are of a different order. If the product is not fruitful of practical consequences it is stamped as spurious. If it does not fit in with the general scheme of reality it is regarded as a worthless figment. Is it true? is a question never asked in the first case, and always asked in the second.

Imagination is sometimes opposed to observation, sometimes to belief, sometimes to conception. It will thus be seen that the term imagina-

tion is extremely ambiguous; and a general recommendation to cultivate the imagination is as vague a bit of advice as could possibly be given.

It generally seems to mean, "Learn to visualise." This is the sense in which Galton uses the term. He says:

"I could mention instances within my own experience in which the visualising faculty has been strengthened by practice; notably one of an eminent engineer, who had the power of recalling form with unusual precision, but not colour. A few weeks after he had replied to my question, he told me that my inquiries had induced him to practise his colour memory, and that he was become quite an adept at it, and that the newly-acquired power was a source of much pleasure to him."

This case is unconvincing. It probably means that the colour of the image was attended to more closely. I have strenuously tried to strengthen my own weak powers of visualisation, but wholly without success. If I wish to draw an object from memory, I cannot draw my image of the object, for I have no image worth mentioning. I *know* that it is a certain shape, but I do not *see* the shape until it is down on the paper. If I wish to make an accurate memory drawing I have to make certain mental notes while observing the object. I have to think of

its proportions, to ask myself certain definite questions about it, and to remember the answers. The memory, in fact, from which I draw is not visual memory ; I have inquired of my friends who sketch and find that their experiences are somewhat similar ; in fact, I do not believe that imagination in the sense of calling up mental images can be trained at all. It is as natural a gift as physiological memory, and is as incapable of alteration. We have it or we have it not.

This view was confirmed by a series of careful experiments made by Mr. W. S. Foster, of Cornell University,¹ on the effect of practice upon visualising and upon the reproduction of visual impressions. The subjects of his experiments, whom we shall call the observers, were three expert psychologists accustomed to introspection. Real objects, pictures, and nonsense drawings, after being shown to the observers for a short time (from ten to sixty seconds), had to be drawn as accurately as possible from memory. Each observer devoted to the work about forty hours, distributed through ten weeks. The results showed that ability to reproduce increased with practice, rapidly at first, but very slowly afterwards. The greatest gain of final over initial ability was 40 per cent., and the least 6 per cent.

¹ See the *Journal of Experimental Psychology* for January 1911.

Each observer ~~was~~ emphatic in stating that there was no increase in the ability or even the tendency to visualise. In fact, the most successful reproducer was the poorest visualiser. He had to rely almost wholly upon verbal cues. They attribute improvement entirely to a feeling of confidence engendered by partial success and to certain habits of attention, methods of work, and modes of procedure. They regard these habits as specific—as applicable only to the material dealt with. It is pointed out, however, that the experiments were made upon adults who were already trained in general habits of attentive observation.

Among about thirty of my friends whom I have carefully questioned I have found only one who claims that he has by deliberate practice improved his power of calling up mental images. He says that he has formed the habit of reading slowly and pausing frequently, in order to give mental pictures time to emerge. He tries to visualise the scene described in the text, and believes that his power of doing so has grown with practice. This opinion is, I think, based on defective introspection. He has got into the way of looking for mental imagery and giving it a chance to develop. He has merely created opportunities.

But even granting that this type of imagina-

tion is amenable to training, is it desirable that special pains should be taken to train it? The main business of the mind is to think, and each mind thinks in its own way. Different minds in thinking out a problem will, if they think validly, all arrive at the same conclusion; but they will all probably have travelled by different mental routes and through different mental scenery. The images are there to help thought. If they hinder it they had better be absent. The older one gets, and the more accustomed to abstract thinking, the greater is the tendency to drop superfluous imagery and to think by means of words. And if efficiency is to be the criterion, bare verbal thinking seems to be considerably superior to thought accompanied by an abundance of vivid images. It is very probable that we cannot think at all without imagery of some sort, visual, auditory, or motor. Introspection, as is perhaps inevitable, has failed to reveal the presence of pure imageless thought. Images of words, at least, are always to be found. And it is when the mental impedimenta are reduced to this minimum that thinking becomes more rapid, more penetrating, and more rigidly logical. The thinking of the artist is of a more concrete kind. Mental pictures form a larger part of his mental equipment. But this matter of mental imagery is not a matter for the educator at all. He cannot

control the images in the mind of the pupil. He can present certain stimuli; he can evaluate the overt reaction. He can present a problem and judge the solution given. But he cannot ascertain what imagery has been utilised by the pupil in arriving at that solution. It is extremely difficult to discover the nature of the imagery in a child's mind. And it is not necessary. Each mind settles the question for itself in its own characteristic way. It uses the images which it finds most easy and most agreeable.

When the teacher of young children is exhorted to cultivate their imagination it generally means that he should tell them fairy stories. With older children a taste for poetry, drama, fiction, and general literature is to be developed. This does not necessarily mean a luxuriance of mental pictures. It is almost certain that a child uses more mental pictures for thinking than an adult; he is only gradually learning to think with words. But the imagery called up by story-telling is but a small part of the process. The important thing is that certain feelings are aroused. The child *feels* the beauty of the story or the language, even if he only partly understands it. If he gets the right feeling, he already has the motive which will secure the right understanding later on. People who have an intense love of literature have often little imagination, in

the ordinary sense of the term. They say they understand what they read, and they feel what they read, but they do not picture it. It is a thing partly of the intellect, partly of the emotions; and partly, but not predominantly, of the imagination.

Ruskin descants at great length in *Modern Painters* on the imagination. He uses the term in the sense of artistic creation. The artist sees a picture in his mind (not a mere copy of Nature, but an arrangement thereof), and paints it. We have no reason to think that the original picture made its appearance in the artist's mind with no intellectual effort on his part. No doubt some happy inspiration came to him, but not the finished picture; it was probably but a spectral suggestion of the picture. Other inspirations came to mould and supplement the original one. As the picture grew it was criticised; intellect had its opportunity. It is by intellectual criticism that Ruskin makes the distinction between "the true and the false imagination."

Artistic creation is charmingly described by the Autocrat of the Breakfast Table:

"Every poem has a soul and a body, and it is the body of it, or the copy, that men read and publishers pay for. The soul of it is born in an instant in the poet's soul. It comes to him a thought, tangled in the meshes of a few

sweet words—words that have loved each other from the cradle of the language, but have never been wedded until now. Whether it will ever fully embody itself in a bridal train of a dozen stanzas or not is uncertain; but it exists potentially from the instant that the poet turns pale with it.”

Can this power of creating works of art be developed? It indisputably can in one sense—the sense in which the other faculties can be developed. It is probable that everybody has the faculty in some measure, and in some specific directions. It is true that a poet is born; but it is also true that he must be made as well. He is born first and made after. For without familiarity with the material of his craft he is but a “mute inglorious Milton.” The greatest painter who ever lived had to go through a blundering novitiate. The one important thing, therefore, that the teacher can do is to give the pupil a certain degree of familiarity with the more important arts—painting, sculpture, music, and literature—not a mere passive familiarity, but that far more profound and vital familiarity which arises from attempts to produce works of art on his own account. The teacher has here no difficulty in finding incentives, for the emotional appeal of art is seldom found to fail. The native and instinctive tendencies of imitation

and construction are ever ready to respond. And the pupil begins to realise his powers. He knows not what he can do until he tries. And partial success engenders that attitude of confidence in his powers which often proves the parent of much useful and noble work. Oliver Wendell Holmes was forty-eight years of age before he discovered that he could write delightful and popular prose. Du Maurier was older before he discovered his capacity for fiction, and William de Morgan was older still.

There is much, therefore, that a teacher can do to train what native powers of artistic production his pupils may happen to possess.

Tyndall uses the term in yet another sense. To him imagination mainly means invention. It is an instrument of discovery in science. In physical science the unseen is explained in terms of the seen—in terms, that is, of matter and motion. Nobody has ever seen atoms of molecules or electrons. The luminiferous ether and its modes of behaviour are as far beyond the realm of direct sensible experience as the events recorded in the Revelation of St. John. They have to be grasped, if grasped at all, by imagination only. This does not mean that they are unreal. They are not imaginary, but imaginative. One justification for believing in these postulates of science is that they explain. We see two ends of a

process but cannot see the middle. Science makes manifest the intermediate stages. But the supreme justification for the assumptions of science lies in the fact that they lead to fresh discoveries. New and subtle phenomena are looked for—and found. In the mere understanding of modern physical science (beyond which the pupil rarely goes until he has arrived at the university stage) the imagination required is not creative. It differs in no way from the kind of imagination required for understanding a book of travels in hitherto unexplored regions. But the kind of imagination required for extending the boundaries of science is of a different kind. It is akin to the mental faculty which enables the engineer to invent new and more efficient mechanical devices. In its simplest form everybody possesses it. The child is constantly adopting physical means to meet physical ends. His body itself is a mechanical contrivance for overcoming physical difficulties. The mere building of a house with wooden blocks may be as original a process to the child as the invention of the phonograph was to Edison. The psychologically new is not necessarily the scientifically new.

It is now manifest that imagination is a chameleon-like faculty. It has so many meanings that a bald injunction to train it is vague and ineffectual. It is far wiser to designate some more

definite aim—to say, cultivate a taste for literature, or cultivate the power of drawing from memory, or of illustrating stories, or of inventing mechanical contrivances, or of expressing, in words or any other medium, imaginary experiences.

CHAPTER XIII

INDIVIDUAL WORK

THERE is little doubt that the most vital movement in education to-day is the movement towards individual work. In all sorts and conditions of schools attempts are being made to change the teaching unit from the class to the section, and from the section to the individual. The teacher who aspires to be up-to-date experiments with the Montessori Method, the Dalton Laboratory Plan, the P.N.E.U. Scheme, or some other device for enabling the pupil to educate himself on his own lines, at his own pace, and by his own efforts. "Auto-education" has become a watchword and a battle-cry. And so has "Freedom." For free discipline, free work, free choice of occupation (or even of no occupation) are regarded as essential to the newer purpose and the higher ideal.

The advocates of self-teaching claim for it an extraordinary success. They say that the results are far better than those obtained under the current system of class teaching; and that this is true not only of those outward products which

the examiner can mark and measure, but also (and this is the important issue) of those intangible products, those graces of the spirit, those subtle changes of mind and heart which make the real difference between the cultured and the uncultured. There are, on the other hand, some who see in this new movement nothing but a lapse into anarchy, a loosening of the bonds of discipline, a return to the methods of the old-fashioned dame school, a wanton rejection of the technique of class teaching that has been so sedulously cultivated in recent years, and a blind refusal of the advantages of a well-organised and well-graded school. Of these two opposing views, the latter, the unfavourable view, may be dismissed as prejudiced and ill-considered. But has the former, the favourable, view been established? All we can say at present is that the new theories are being put to the test of searching experiment by an army of earnest teachers scattered among the schools of Britain. And the results that have so far appeared are distinctly encouraging.

What forces have been at work to give so sharp a turn to the educational current? There is, first of all, the general trend of psychological theory. Fifty years ago psychology was mainly concerned in generalising: to-day it is mainly concerned in particularising. It began by seeking to discover how people's minds resembled

one another : it passed on to investigating how they differed from one another. And it was not long in reaching the conclusion that men's minds were not all made on the same pattern, like so many Ingersoll watches, but that each mind had its own peculiar structure, and its own peculiar movement. The first Englishman to point out these differences was Sir Francis Galton. In his *Inquiries into Human Faculty*, published in 1883, he showed how enormously people differed in the type and vividness of their mental imagery, in the pattern into which the number series fall when they try to call them to memory, in the extent to which their mental pictures are imbued with colour, in the lines of association with which their minds are cobwebbed, in the contents of both the antechamber and the presence chamber of consciousness, in the nature and strength of their early sentiments, in their natural endowments and their personal acquisitions—in every way, in fact, upon which he was able to cast his searchlight.

And when experimental psychology took the field it disclosed more and more the wide variation in individual minds. The application of mental tests in school has revealed unexpected degrees of difference between the minds of children of the same age, of the same race, of the same sex, and of the same family. It has con-

firmed and amplified Galton's conclusions and has shown that the pupils in our schools differ widely in their mental make-up; not only in their native intelligence, but in their likes and dislikes, their peculiar modes of thinking, their peculiar lines of mental and bodily skill. And the new psychology, the psychology of the unconscious, shows the same individualistic bias. What specially interests the psycho-analyst is the unique personal history of his patient, the way in which that patient differs from everybody else in the world.

Experience in the classroom has confirmed the findings of psychology. The discerning teacher knows that there is no such thing as a homogeneous class—a group of children at the same intellectual stage, ready for the same intellectual food, capable of making the same intellectual growth. If there were, collective teaching in all subjects would be so obvious an economy of time and effort as to need no justification. And the size of the class would not matter very much. But a bitter experience has taught the teacher that the size of the class matters a great deal. It has taught him that he cannot educate a crowd as a crowd, and that the success of his teaching depends on the extent to which he can meet the needs of each particular pupil.

Many years ago, as far back as the days of

annual examinations, a young teacher who had just left college was given charge of Standard III in a school in the East End of London. Before the close of the afternoon session on Fridays the attendance register had to be made up and the totals handed to the headmaster; and the only time in which he could conveniently do this was during the geography lesson. There were two geography lessons a week, and the first of them he gave on the most enlightened plan he knew—the method of wall map, sketch map, blackboard, and carefully prepared oral instruction—the method, in fact, of chalk and talk. But for the second lesson he simply devised means to keep his boys busy while he posted up the register and balanced the school fees. He gave them a series of short written questions, each of which involved the searching of the map and the recording of the result. He did not regard it as a serious lesson in geography, and his conscience was not very comfortable about it. When, however, he tested his boys at the end of the term, he found to his disgust that they knew virtually nothing of what he had laboriously and punctiliously taught them, but were thoroughly conversant with the facts which they had discovered for themselves. His ideal lesson was a dismal failure: his make-shift lesson was a brilliant success.

Twelve years later he had the same truth borne

in upon him in much the same way. He had just been appointed head of a newly established pupil teachers' centre in the provinces. The students were a mixed lot, some highly intelligent, others mediocre, one or two obviously unfitted for the profession. In two respects, however, they markedly resembled one another : they were all well-disposed (more kindly than keen, in fact) and they had all woefully neglected their studies. Only three months lay between them and the annual examination, and there was one subject, elementary science, which none of them had touched. He resolved to take this subject himself. To telescope twelve months' work into three was no easy task ; but he was ardent and hopeful and had taught the subject before. He relied on what capacity he had for clear exposition. And he taught for three months at white heat. No time for notes (except a few dictated notes), no time for private study (except at home), no time for testing ; nothing but oral teaching, experiments made before the class, blackboard illustration, demonstration, explanation, and exposition, brief question and answer, sharp give and take between teacher and taught. But he covered the syllabus—covered it with chalk and talk. Then he set them an examination. The result was appalling ! Here is an extract from one of the papers : “ To con-

struct a mercurial thermometer, take a piece of glass tubing, fill it with mercury, eat it, and continue the process."

Thus did he learn for the second time that a firm conviction¹ on his part that his teaching was sound and effective was no guarantee whatever that it really achieved its purpose. The young teacher in those days was generally told at the outset of his career that telling was not teaching, but he was never told that teaching was not learning. That he had to discover for himself. And I have given one man's early experience, not because it is unique, but because it is typical. It illustrates the way in which the passing generation of teachers came to recognise the limitations of class teaching and to realise the fact that a garment made to fit everybody fits nobody.

The first time I ever saw the modern type of individual work was at the Michael Faraday School, Walworth, somewhere about 1907. Mr. Marshall Jackman, who was then the headmaster, had an experiment afoot which involved the abolition of written arithmetic in the lower standards. It was this experiment that I went to see; but far more arresting than the experiment itself (although this was of no small interest and value), was the programme of work in the highest

¹ Samuel Butler says somewhere that experience brings with it a certainty of the uncertainty of our most assured convictions.

class. There the boys worked independently, kept their own time-tables and their own diaries, and acquired habits of initiative and self-reliance which I had never seen acquired elsewhere. This was probably the first class in England working on the Dalton Plan. It was in this school, too, that I first saw free discipline successfully maintained among senior boys.

About the same time a steady trend towards free discipline and individual work was perceptible in a number of London schools, both senior and junior. The rigidity of the discipline in infant schools was, by the influence of the newer Froebelians, gradually being relaxed, and self-activity was being increasingly encouraged. So that when, somewhere about 1911, rumours reached England of a wonderful new method, invented by an Italian lady—a method which enabled little children of three and four years of age to work independently, and, without any disciplinary pressure of any kind, to reach a standard of attainments which English children could not reach till they were two or three years older—educational circles in England were eager for details of this new method.

When the details arrived there was frank disappointment. Some of the leading apostles of freedom in the infant school thought they saw in the Montessori system much that was reac-

tionary and not a little ~~that~~ was mischievous. It brought back the three R's, which had virtually disappeared from the lower half of the infant school; it brought back formal apparatus just when the school had succeeded in emancipating itself from the formalism of the Froebelian gifts; and it brought back sense training after the school had definitely discarded the sensory occupations of the kindergarten—the pricking, and shredding, and drawing to pattern, and colour identification—and had put in their place free drawings, free occupations, and other pursuits that appealed to the imagination. In thus exercising the senses instead of the imagination, and in bringing into play the lower functions of the mind instead of the higher, the Montessori method seemed, in comparison with Froebelian ideals, to be materialistic and mechanical. And its omissions were as unwarranted as its inclusions. There was no story-telling, no constructive handwork, no expressional drawing, no lesson which aimed at appreciation as distinct from execution. The consequence was a strong opposition from the Froebelian side. It was maintained on public platforms that what was sound in the Montessori theory was not new, and what was new was not sound.

Many teachers, however, regarded this opposition as prejudiced and unreasonable, and prob-

ably based on a misconception of what the Montessori principles really were. They cautiously tried Montessori methods in their schools, and began to study the principles that underlie them. Dr. Montessori herself came over to England, gave courses of instruction to teachers, and soon gathered round her a group of ardent disciples. Meanwhile Montessori methods rapidly spread in our infant schools—not in their original purity but in a modified and adulterated form. The teachers instead of adopting the system adapted the system. Although the letter of it was not accepted, the spirit of it was speedily absorbed. And in the course of time the miracle of Montessori stood revealed—the miracle of making it possible for private study to take place in the infant school, of making it possible for a number of little children to work independently in the same room at the same time, and this without any driving power beyond the impelling force that comes from the work itself. This seems to me to be an amazing achievement. And in this alone, even if she had done nothing else, Dr. Montessori has made an imperishable contribution to the cause of education.

Another of her great achievements, and one liable to be overlooked, is that she has emancipated the child from the teacher : she has rescued him from the sentimentality of the adult. I use

the word sentimentality¹ in a specific and definite sense—in the sense of affection which is more concerned with the giver than with the receiver. It is love that seeketh her own ; not consciously,

¹ It is often difficult to know what people mean when they use the word sentimental. They generally make, or at least imply, a distinction between sentiment and sentimentality, using the former as a term of approval and the latter as a term of contempt. Sentimentality is sometimes defined as feigned sentiment, an insincere exhibition of feeling. If that be its essential meaning then I fear that every day of our lives common politeness betrays us into sentimentality. Nay! the emotion of the sentimentalist is genuine enough, such as it is. He feels compassion for the poor, but he never feels in his pocket. He is only half a sentimentalist who in Sydney Smith's words "is willing to do the good Samaritan without the oil and the tuppence." The complete sentimentalist will not even take the wounded man to the inn: he will content himself with pitying the poor fellow. His sentiment evaporates into words without ever crystallising into acts. Then again, sentimentality has been defined as an excess of emotion—an amount that is greater than the situation justifies. But how much does it justify? An Englishman and a Frenchman or an Italian would not agree upon this point. To the Englishman a foreigner's emotion seems always in excess: sentiment seems to ooze out of him; he overflows with it, "and stands in the slops." Mr. Belfort Bax has suggested that sentimentality is sentiment wrongly distributed. A lady is sentimental if she is affectionate towards a lap-dog and callous towards a suffering child. But who is to be the arbiter of a just distribution? The only conclusion I have been able to reach is that when a man speaks about sentimentality all he means is the kind of sentiment that he doesn't like.

perhaps, but harmfully for all that. It is love that is blind ; not blind to the loved one's faults, but blind to his happiness and his welfare. It is kind only to be cruel. It never arrives at compassion because it never arrives at comprehension. The sentimentalist is inclined to regard a child as a domestic pet, and to forget that he is a human soul striving towards self-realisation, and living and growing in a universe of his own. There are many signs by which you may know the sentimentalist. He believes that children prefer kisses to chocolates, that they like to be addressed in baby-language, that they are amused by badinage, and that they are happier and better for being told lies about Santa Claus and about the stork. A common type of sentimentalist is the mother who, loving her child devotedly, demands an equal return of devotion and keeps him tied to her apron-strings to his own hurt. Anybody, in fact, who prevents children from growing up, who keeps them childish because he likes them so, and keeps them slavishly dependent on him because it feeds his vanity, is a sentimentalist of the first water. The infants' teacher is placed under a strong temptation to lapse into such sentimentality ; and in guarding her against this temptation Dr. Montessori has exposed herself to much misunderstanding. She has been regarded as an enemy to imagination in the good

sense, when she is an enemy to imagination only in the bad sense. She has been accused of ignoring the inspiration given by the teacher, when she has merely tried to prevent the teacher from diverting to herself an attention and an allegiance which really belong to the objects of study. Many of these misconceptions may be removed by reading Mrs. Radice's little book *The New Children*.

Dr. Montessori has deepened and widened our conception of freedom and of its possibilities in the classroom; and by her acute observation of children at work she has enlarged our knowledge of the growing mind. She has dispelled the old belief that a child's mind is of the butterfly order, that his attention is naturally vagrant and volatile, and that it is unreasonable to expect him to work for any length of time at the same task.

Whatever may be the defects of her system it is quite certain that the movement towards individualism in the school has received its greatest impetus and its greatest inspiration from Dr. Montessori. It is in the schools where her influence is most marked that individual methods are most firmly entrenched.

Thus the infant school and the kindergarten either drifted or drove into the various modes of auto-education. But what, in the meantime, was happening in the higher schools? Things

were ~~not standing~~ still. Classes were getting smaller, the exigencies of school accommodation made the classes more and more mixed in ability and attainments, and the teachers became more keenly conscious of the need for sectional and individual teaching. In the top class of the elementary school the need was poignantly apparent. And teachers began in a cautious and tentative way to individualise the work. Dr. O'Brien Harris, a disciple of Dr. Montessori, introduced into her school, the County Secondary School, Clapton, a scheme of individual work which she calls the Howard Plan and describes in her book, *Towards Freedom*. But the great push, which in the infant school came before the war, did not come in the senior school till after the war. And it came from Miss Helen Parkhurst, who had a school at Dalton in the United States. It was Miss Belle Rennie who discovered Miss Parkhurst. She went over to America, saw the Dalton School, and wrote to *The Times Educational Supplement* a letter which attracted much attention. Miss Rosa Bassett of the County Secondary School, Streatham, crossed the Atlantic, came back a convert, and Daltonised the whole of her large school. Finally, Miss Parkhurst herself came to England and lectured on her system. She made it quite clear that it was no cut-and-dried scheme warranted to fit any school and

any type of child, but an adaptable plan which embodied certain definite ideals. It was essentially a set of principles and not a set of prescriptions. It gave to the teacher the same freedom that it gave to the pupil, and it gave to the pupil the same ideals that it gave to the teacher. In fact, Miss Parkhurst made a favourable impression on English teachers by the breadth of her views and the fine impersonality of her policy. The leaven began to work, and in some form or other Daltonism broke out in school after school. Everywhere teachers began experimenting with individual work: they tried to find out how far the traditional methods of class teaching may be discarded in favour of something that is better, and more in accord with our most cherished ideals.

And that is where we stand to-day. Individualism is not so solidly established in the senior schools as in the infant schools, nor is it so widely spread, nor is it so indubitably successful. There is strong presumptive evidence in its favour, but the conclusive evidence has yet to come. And between the infants and the older scholars there is a neglected middle, for which little more than theoretical provision has yet been made.

It is pertinent to inquire how this new mode of learning differs from the study which a child pursues at home under the direction of a tutor

or governess; and how it differs from the education given in the dame school of former days, or in the small rural school of to-day where children of a wide range of ages have to work together side by side. Let me, in the first place, enforce the principle that individual work is not solitary work. An individual always forms part of a social group, and has his own particular function to perform within that group. He is not like one of a number of balls in a bag, but like an organ in an organism. He is an actor among a company of actors, and except when he forms part of a chorus, his rôle differs from everybody else's rôle. And although he finds it most convenient to study his own part by himself, his company is always there as part of his mental background. Not only is the social training afforded by the school community an important part of a child's education, but the actual presence of the community is an aid to study. It has, in fact, been demonstrated by Meumann that when a boy is given an educational test in a room by himself he invariably does worse than if some of his companions are working in the room with him. When independent study is pursued by a number of pupils in a classroom, the independence is not so complete as it seems. There is a contagion of feeling if not a contagion of thought.

The individual work of to-day differs from that of the past in the fact that it is better conceived and better organised. And the better the organisation the better the results. Indeed, the weaknesses and failures of the individual work of to-day can all be ascribed to inadequate planning on the part of the teacher. The teacher who says, "Let me see; what shall I set you to do to-day?" or "There's your book; get on with it," is reverting to the method of dame and primer. He must remember that the newer methods make greater demands on his resources and his patience than the older methods; and if he is not prepared to look far ahead, to anticipate, to plan, to systematise, to record, and to test with some approach to scientific precision, he had far better adhere to the collective methods of the past.

It is held by some that individual work and collective work cannot be mixed; that each is like a jealous wife who demands the whole of one's loyalty and attention. This is a grave mistake. In schools where individual work is most successfully carried on it is judiciously interspersed with group teaching and class teaching. Indeed, it is quite obvious that in certain subjects, such as music, games, story-telling, and physical exercises, the collective method is the only possible method. The critics of the new doctrine de-

plore the loss of the inspiration and stimulus that came from class teaching. But how much inspiration was there, and how much stimulus, in the teaching of the past, when the teacher was always explaining and expounding, answering questions which the children had never asked, solving problems which the children had never propounded? He was not feeding the hungry, but feeding the fed—or, more frequently, feeding the fed-up. That is not the road by which inspiration comes. Indeed the reformer would restrict the oral teaching in order to intensify it. He would rob the oral lessons of this lumber, and fill the few that are left with vitality and vigour.

The assumption that the teacher is the sole source of inspiration is gratuitous. If the work itself does not grip, if the books read do not inspire, if the very appurtenances of the classroom do not furnish some quota of stimulus to industry and effort, then the teacher has failed at the vital point—he has failed to organise his pupils' studies. And this failure cannot be rectified by talk. For the inspiration of the teacher should be of the same stuff and substance as the inspiration that comes from the work. The object of the one should be to reinforce the other. The teacher's courtship of the class should always be the courtship of Miles Standish—the winning of

the children's love for something other than himself. His aim should, in fact, be to render himself progressively unnecessary.

It cannot, however, be denied that there is often need for a stronger appeal to a child's emotional nature than is made by the ordinary routine of school studies. And in devising new methods, of a ceremonial or celebrational kind, which will supply this stronger appeal, Dr. F. H. Hayward is providing a valuable antidote to dry-as-dust grind, and to excessive absorption in the machinery of schooling.

The new movement has received scholarly support from Professor Nunn's book, *Education : its Data and First Principles*, which may indeed be regarded as the individualist's bible. No finer and no saner plea for individuality could be found.¹ Dr. Nunn claims that "freedom for each to conduct life's adventure in his own way and to make the best he can of it is the one universal ideal sanctioned by nature and approved by reason." It is an ideal which has won to-day so passionate an allegiance in many a teacher's heart that he is ready to sacrifice everything to realise it in the classroom. He is well aware that outwardly there may not be much to show for his efforts. "But, while no miracles would

¹ See also his Introduction to Miss J. M. Mackinder's useful little book, *Individual Work in Infants' Schools*.

happen, and boys and girls would remain boys and girls, sometimes idle and sometimes wayward or worse, there would be in the school life as a whole a sincerity, a vigour, a dignity, that are hardly attainable under the authoritarian tradition."

CHAPTER XIV

FROM LATIN TO ENGLISH

But as for the Latin, Madame, you can really have no idea how muddled it is. The Romans would never have found time to conquer the world if they had been obliged first to learn Latin. Those happy people knew in their cradles the nouns with an accusative in *um*. I, on the contrary, had to learn them by heart, in the sweat of my brow.

HEINRICH HEINE: *Reisebilder*.

IN mediæval days the only schools of consequence in England were grammar schools, and the only teachers were teachers of Latin. The schools were called grammar schools, not because they taught English grammar (there was no English grammar to be taught), but because they taught Latin grammar. There was of course Greek. But the monks of the Middle Ages regarded Greek as an invention of the devil—an opinion since endorsed by an untold multitude of suffering schoolboys—and even in the schools of the Renaissance Greek was made subsidiary to Latin: a language for the few, not for the many. Latin filled and dominated the school: it was the chief, and often the sole, subject of

instruction. To be a scholar was to be a Latin scholar; to be illiterate was to be ignorant of the Latin tongue. And for this strange allegiance to Latin there was abundant reason.

Latin was the language of Imperial Rome—the language of a great civilisation which had spread like a fertilising flood over the whole of habitable Europe, to say nothing of Asia and Africa; and when the flood itself had receded, its fertility was left behind. Our own civilisation, in fact, is rooted in Roman civilisation. And not only does Britain contain Roman remains, but, as Mr. Chesterton has pointed out, *she herself is a Roman remain*. Cæsar and his legions found us savages and left us barbarians—a people half-way between savagery and civilisation. And the succeeding tides of invasion, Saxon, Danish, and Norman, either drove us back into savagery or brought with them elements of culture which they themselves had acquired from Rome. The earlier Roman influence came with the sword, the later with the cross and the crosier. And long after Latin had ceased to be the spoken language of any race or nation, long after it had in Rome itself faded into Italian, it continued to be the prescriptive tongue of the learned professions. The lectures at the Universities were in Latin; the disputations for degrees were in Latin. And even to-day Latin is the medium

of oral instruction in some of the seminaries of the Roman Church.

When we consider the written word as distinct from the spoken word we find the influence of Latin more widespread still, and more persistent. Right up to the beginning of the eighteenth century Latin was the Volapuk, the Esperanto, the Universal Language of learned Europe. It was the means by which scholars kept in touch with one another. If a man wished to disseminate his thoughts, if he wanted them to reach those who were likely to estimate their value, if indeed he wanted to be read at all, he had to express his ideas in Latin. When Thomas Hobbes wrote *Leviathan* he wrote it in Latin, and when Milton quarrelled with continental scholars on politics or religion or anything else he quarrelled in Latin pamphlets. More's *Utopia* and Bacon's *Novum Organum* were both written in Latin; and when Newton gave his scientific discoveries to the world he called his book *Philosophiæ Naturalis Principia Mathematica*.

Latin was not only the language of universality, it was also the language of permanency. Diplomas on parchment, mottos on coats of arms, inscriptions on tombs, superscriptions on coins, legends on buildings—all writings and records that are intended to resist the corroding tooth of time are even to the present day couched in the Latin

tongue. A little more than a century ago it was believed that to write in Latin was to build in marble; to write in English, to build in brick. It will be remembered that after Johnson had written his celebrated epitaph on Goldsmith, some of Goldsmith's friends, including Sir Joshua Reynolds, Dr. Warton, Edmund Burke, and Edward Gibbon, sent to the Great Cham a round robin begging him to write the epitaph in English instead of Latin. His reply was that he would never consent to disgrace the walls of Westminster Abbey with an English inscription. He remarked to Sir Joshua, "I wonder that Joe Warton, a scholar by profession, should be such a fool." His clinching argument was: "Consider, Sir, how you should feel, were you to find at Rotterdam an epitaph upon Erasmus *in Dutch!*"

There is yet a stronger reason for the supremacy of Latin: it had a great literature—though not the greatest in the world, incomparably greater than our own. Before the days of Queen Elizabeth England could boast of no books that unquestionably stood in the first rank. The only poem with claims to immortality was *The Canterbury Tales*, and the only prose writings that were widely read were translations from other tongues. But with Latin it was different. It had not only a noble literature of its own, but it had in the Vulgate a complete translation of the Scriptures,

and it had rendered some at least of the literature of Greece accessible to the Latin scholar. And when the Revival of Learning and the invention of printing brought this vast field within the reach of the many, it became evident to all that a familiarity with the Latin tongue was a key to a mighty storehouse of knowledge and of culture. The mind of the reader was brought into contact with the best minds of the day and the best minds of the past. His reading gave him sweetness as well as light : it not only illumined the intellect, it purged and purified the emotions. Moreover, it placed before him models of poetry and prose which, regarded purely as works of art, were among the finest which the world possessed.

Is it thus to be wondered at that the founders of the old grammar schools saw in Latin the instrument *par excellence* for the education of the young, and that the study of Latin became the staple of the school curriculum ? Neither from the useful nor from the cultural point of view could the claims of any other subject compete with it.

In the days of the Renaissance, Latin as a school study stood on many legs, all of them strong. But time has destroyed some of these supports, has enfeebled others, and has left scarcely one of them untouched. Arguments which were valid enough five hundred years ago have long since lost their cogency. Five hundred years of

national progress and consolidation have brought us much farther away from the age of Roman rule and Roman influence. The greatness of the Roman Empire is rivalled by the greatness of another empire, the British Empire. The English language is spoken to-day by a larger number of people than ever at one time spoke the language of Rome. We have evolved a civilisation, an ethos, of our own, which owes to Rome little more than a sound starting point. Indeed, the recent extraordinary development of physical science, and of the means of transport and communication, has placed between the civilisation of the modern world and all other civilisations an abysmal gulf. Latin has ceased to be the universal language of Europe for any purposes whatever. Latin books are no longer written by scholars; Latin lectures are no longer delivered at the Universities. Members of Parliament have given up the habit of interlarding their speeches with quotations from the classics. More significant still, our own glorious language has gradually, steadily, and almost imperceptibly been supplanting Latin in the spiritual life of the nation. It has risen from the illiterate and competing dialects of the Middle Ages to the unity and stability of a national tongue. Its grammar has been stabilised by the usages of our great writers, its spelling has been fixed by our great

lexicographers. Above all, we have evolved a literature of our own which is second to none in the history of mankind. Apart from our own books all the great books of other nations have been translated into English; and there is now no reason why an Englishman who knows no language but his mother tongue may not become acquainted with the best that has been said and thought by man since the beginning of recorded time.

It will thus be seen that a profound change has been gradually taking place in the intellectual life of the nation, and one would naturally have expected to find this change reflected in the nation's schools. But what do we actually find? We find that in our great seats of learning the curriculum of the Middle Ages has been retained almost unchanged up to within the memories of men now living. I frequently meet in the streets of Chiswick Mr. C. Pendlebury, who tells me that he was the first permanent mathematical master appointed to the staff of St. Paul's School. That was in 1877. Hard as was the struggle to get mathematics within the charmed circle of the curriculum, the struggle to get science in was harder still. For science was regarded as the deadly foe of the classics, and long and bitter has been the controversy on the rival claims of these two branches of study. But the classicists had

mistaken their foe. The real foe of the classics in England is not science but English. For science fights from a distance, and on territory legitimately her own; but English is engaged in sapping and mining the very ground on which the classics stand. What the advocates of English for the English claim is, that English can do for the modern child all that Latin could do for the mediæval child. And do it better.

It is interesting to inquire why the classics continued to dominate the curriculum long after the special reasons that led to their dominance had lost their validity; and especially when it became obvious that the avowed aims of the instruction were rarely accomplished, that the peculiar culture which the study of certain ancient writers was supposed to give was seldom in point of fact secured. The majority of the pupils received indeed a grounding in Latin and Greek, but the grounding soon faded away, and nothing remained. They would grind at grammar with a view to the enjoyment of literature; but the grind alone was certain: the prospect of enjoyment was dark and dubious. They got no farther than the porch of the temple: the very methods adopted shut them out of the sanctuary. Tennyson tells his son how much he hated Horace, because Horace was the author most thoroughly drummed into him. This is how Thackeray

writes about his schooldays : " When I think of that Latin grammar, and of other things which I was made to learn in my youth, upon my conscience, I am surprised that we ever survived it. When we think of the boys who have been caned because they could not master that intolerable jargon ! What a pitiful chorus those poor little creatures send up ! I have the same recollection of Greek in youth that I have of castor oil."

It was Greek, too, that nauseated James Payn, who writes thus in *Gleams of Memory* : " I was far from being an idle boy—and my worst enemies will hardly accuse me of being an idle man—but somehow I never cottoned to my studies. I never liked Latin, and I detested Greek. Great heavens, what have I not suffered from that hateful tongue ! One hears talk of the ' Dead Hand ' and its enormities, but what are they compared with the enormities inflicted on the young by the dead languages ? The bubble of classical education has burst now, or is in process of bursting, but in my day it was a blister, and it was applied to every boy. The whole system was a cruel despotism tempered by cribs ; but for them we should have perished miserably among the paulo-post futurums and the aorists."

Having listened to the scribes let us now hear what a rabbi has to say. D'Arcy Thompson, Professor of Greek at the University of Galway,

describes his old school, and refers thus to the boys whose training was partly commercial and partly classical: "But of one entire half of this long school probation, the majority carried away no intellectual memento. Upon that half had been brought to bear the most expensive part of the educational machinery; masters of arts instead of ushers; clergymen instead of laymen; dictionaries and lexicons instead of copy-books and slates. There had been no lack of sowing; but there had been no reaping; no gathering into barns: although, Heaven knows! the ground had been well harrowed, and the seed had been watered plentifully, and with tears."

These are no biassed witnesses: they are the intellectuals. Others, many others, have written in a similar strain. And if the intellectuals fared so badly in their dealings with the classics, have we any ground for believing that the rank and file fared any better? Clearly the system needed defending. And the defence took the line of asserting that what had been pointed out as blemishes were really merits; that the discipline, both intellectual and moral, that lay in stubbornly tackling a difficult and distasteful task was the important thing, not the success that might or might not follow. Boys would frequently be required in after life to do a multitude of things which they did not in the least want to do, and

the sooner they were schooled into doing them the better. It was true that Latin had ceased to be of direct service in daily life ; but that was an advantage rather than a disadvantage. It afforded an intellectual gymnastic, which was better than intellectual labour. Stated in bald terms the defence was that Latin was of supreme educational value, first because it was difficult, secondly because it was disagreeable, and thirdly because it was useless.

So obvious is the weakness of this triple plea that nobody now puts it forward without first wrapping it up very carefully in words, carefully enough to give it some chance of escaping detection. The judicious discard the formal discipline plea and seek justification elsewhere. Some rest in the belief that Latin is the most perfect language, the most perfect instrument of thought that the mind of man has evolved. They regard it as a finer, a more delicate and precise, means of expression than any language now spoken. Far superior to English. Indeed Latin and English stand at opposite linguistic poles. While Latin is the most synthetic of languages, English is the most analytic. While Latin has the most grammar, English has the least grammar. The farther back we trace the English language the more we find it resembling Latin with its complicated machinery of accidence and syntax.

English has gradually been decaying, falling to pieces, losing its case endings, its gender endings, its tense mutations. Latin has followed the same downward path. Losing its crystal compactness of word and clause it has deliquesced into the modern welter of romance languages. Disintegration all along the line. To go back to classical Latin is to return to the golden age of linguistic expression, when thought and language dwelt together in the happiest of wedlock.

All this is, alas, illusory. It is one of the hoary theories that modern scholarship has shown to be untenable. It can be demonstrated that the change from the synthetic form to the analytic form of a language is a change for the better, an evolutionary process by which the language becomes more simple, more flexible, and more efficient as a practical instrument of thought. Inflections are not dropped till they become cumbersome and useless—till better means are devised for expressing the same shade of thought. Words, in fact, shed their terminations for the same reason that tadpoles lose their tails. The reader will find this position set forth and supported by abundant evidence in Professor Bréal's *Semantics* and in Professor Jespersen's *Progress in Language*.¹

¹ See also the Departmental Report on *The Teaching of English in England*, pp. 286-287.

But the Latinists have other weapons in their armoury. They point out the importance of studying the structure of language, and they assert that this structure can best be witnessed in the Latin tongue. They further contend that translation from Latin into English and from English into Latin forces the student to think out the exact meaning and to express it with clearness and precision. This delivers him from vagueness. And the fact that he can put his thoughts into English or Latin indifferently brings out the independence of his thoughts. This delivers him from verbalism.

There is something in these arguments, though not much. What *is* the structure of language? There are, it is true, certain psychological laws which are discernible in all thinking, and all discursive speech must conform to those laws. But those laws are much more easily apprehended in the mother tongue than in any other. The advantage of bilingualism may be conceded, though recent research tends to show that the advantage is much over-rated; and indeed, if acquired too early, the dual language may impede rather than promote the natural development of the mind. The greatest literatures of the world—the Hebrew and the Greek—were produced by men who knew no language other than their own. And Shakespeare is not the

only Englishman who, with little Latin and no Greek, has written things which the world will not willingly let die.

The great ~~work~~ of defence, however, is the literature of the Latins. It has been asserted that in Horace and Vergil is to be found the most beautiful collocation of sounds in the world. This opinion is maintained both by those who give the words the English pronunciation and by those who give them the continental pronunciation. The sounds are very different in the two systems, yet whichever system we apply we still get the most beautiful collocation of sounds in the world. Mrs. Winifred Stoner cradled her infant prodigy with Vergil. She put her baby to sleep by crooning to her lines from the *Æneid*, and she claims to have made the discovery that Vergil is more than a great poet: he is a baby pacifier. She goes on to say: "In singing most songs there are always notes that startle rather than soothe a sleepy child; but in the even metre of *Arma virumque cano, Troiæ qui primus ab oris* there are only soothing sounds."

All this is quite independent of the meaning. It would be equally true—or equally false—if the lines had no more meaning than *Ena deena dina do*, or *Fee fi fo fum*. The phonetic argument would be more convincing if it referred to the sounds of the words solely as pronounced by the

poet who wrote them. But it generally refers to a home-grown English pronunciation. Our insular rejection of the only ~~pronunciation~~ ^{pronunciation} that has any likelihood at all of resembling the original is supposed to be fortified by such frivolous arguments as that *vicissem* if sounded in the continental way would suggest to us an osculatory exercise. Speaking publicly in this vein Mr. Winston Churchill dealt what was intended to be a crushing blow at the reformed pronunciation by saying that *audire* would sound like a Cockney trying to say "Oh Dearie!" Arguments about sound do not carry us very far. If sound without sense is what is needed Mrs. Stoner should try Swinburne. Mr. Arnold Bennett contends that for mere seemliness of sound "pavement" is the most beautiful word in the English language.

Though the music of words is no doubt an important part of the charm of literature, this music, taken by itself, is little or nothing. And the same may be said of the meaning. Indeed, the belief that the form and the content are indissoluble is the only ground for reading the classics in the originals. The full beauty of the classics can be revealed only to those who approach them at first hand. If Keats had looked into Homer's Homer instead of Chapman's Homer, his celebrated sonnet would not perhaps have

been better, but his admiration would have been deeper. That, at any rate, is the theory. In the very week when I write these words Lord Coleridge publishes a book called *This for Remembrance*, and in it he thus describes the teaching in the great Public School at which he was educated: "It was as bad as it could be. Here was I with a mind fallow, but quite*capable of appreciating the glory of the classics, which were mainly taught. No attempt was made by any master I was ever up to in school to instil any love into our minds of the noble literature we were reading."

Perhaps the boyish mind is incapable of loving this noble literature. Its splendour can be seen only by adults. That at any rate is what is suggested in the following beautiful passage from Newman's *Grammar of Assent*:

"Let us consider, too, how differently young and old are affected by the words of some classic author, such as Homer or Horace. Passages, which to a boy are but rhetorical commonplaces, neither better nor worse than a hundred others which any clever writer might supply, which he gets by heart and thinks very fine, and imitates, as he thinks, successfully in his own flowing versification, at length come home to him, when long years have passed, and he has had experience of life, and pierce him, as if he had never before

known them, with their sad earnestness and vivid exactness.

“Then he comes to understand how it is that lines, the birth of some chance morning or evening at an Ionian festival or among the Sabine hills, have lasted generation after generation, for thousands of years ; with a power over the mind, and a charm, which the current literature of his own day, with all its obvious advantages, is utterly unable to rival.”

I have spoken mainly of Latin because it has bulked so large in the life of the English school. Greek has played a humbler rôle. Yet there is little doubt that in its literature, if not in its language, the glory that was Greece far surpassed the grandeur that was Rome. The dreamer and the poet, and, to a certain extent, the man of action, is much more influenced by Greek thought than by Roman thought. The great currents of philosophy and science that have moved and shaped the minds of men for the last two millenniums have sprung not from the City of the Seven Hills but from the city of Socrates. And indeed, from the point of view of language alone, language as a vehicle and an instrument of thought, there are many ardent Hellenists who hold that the language of ancient Greece stands not only higher than Latin, but also higher than any living language of the present day.

When all the arguments are analysed it will be seen that they mainly fall into three groups: those that urge the value of grammar as a mental discipline, those that press the claims of a great language, and those that sing the praises of a noble literature. The first may be dismissed as ill-conceived: the other two are unassailable. "Language!" says Little Boston in the *Professor at the Breakfast Table*, "the blood of the soul, sir! into which our thoughts run and out of which they grow." The supreme cultural value of great poetry and great prose will be admitted by all who regard culture as something more than training by intellectual tricks. But the modernist points to our mother tongue and asks whether all the deeper reasons which have been put forward for the study of Latin and Greek may not be met, and met in fuller measure, by the study of English. Is not the baby mind better nourished by its mother's milk than by less natural food? Blood of the soul, sir! Yes, but the blood of the British soul runs in Chaucer and Shakespeare, not in Homer and Vergil.¹

It is a curious fact that the last of all the sub-

¹ Other aspects of the relationship between Latin and English are dealt with in the Departmental Report on *The Teaching of English in England*, in George Sampson's *English for the English* (a book of much vigour and wit), and in P. B. Ballard's *Teaching the Mother Tongue*.

jects to be incorporated in the curriculum of English schools was English. In the elementary schools there was a system of parsing and analysis which bore the same relation to English proper as sawdust bears to a living tree, or dust and ashes to a living fire. In the schools of the Universities the inclusion of English, with the establishment of chairs and readerships and lectureships, is a thing of yesterday. Yet everywhere the tide is swelling. In our humbler schools the emphasis has shifted from the study of the anatomy of language to the study of the life of language. In our higher schools there has been within recent years a dramatic change in the centre of gravity from Latin to English. In most secondary schools English has now become the central factor in the scheme of studies, and Latin has taken its rightful place in the orbit, as an advanced subject which comes after and not before the study of the mother tongue.

Though English will ever remain the chief humanising factor for the many, the best and brightest minds will always call for more than what the native tongue can give: they will be always hungry for the classics. For the classics form part of the common heritage of Western nations. It is not a question of English versus the classics, any more than feeding is a question of milk versus meat. It is a question of to

whom and when to give the one and to whom and when to give the other. The strong and healthy mind will benefit by both. When the drowned body of Shelley was discovered on the sands of Viareggio, in one of his coat pockets was found a volume of Sophocles, and in the other a volume of Keats.

CHAPTER XV

THE BESSEMER PROCESS

STEEL is iron with a certain percentage of carbon. It used to be made from cast iron, which contains a fairly large proportion of carbon, by gradually and laboriously removing the carbon until just the right amount was left behind. The iron in fact was decarbonised. But not entirely; only down to a certain point. The difficulty was to determine precisely when that point was reached. It had to be done by guessing. It was expert guessing; but still guessing. The resulting steel resembled the product of amateur cookery. It was very uncertain in quality; and when right it was right by accident. In 1856 Sir Henry Bessemer discovered that iron could be rapidly and cheaply decarbonised by forcing a blast of air through the molten metal; and later on it was discovered that the simplest and surest way to turn it into steel was to take all the carbon out and then reintroduce just the right amount. The Bessemer process of making steel, therefore, consists

of two essential parts—complete decarbonisation and partial recarbonisation. First, all the carbon is taken out, and ~~then~~ a little bit is put back.

A process very similar to this has during the last thirty years been extensively taking place in the schools. Subjects that once occupied a large and honoured place in the curriculum have been entirely removed—for a time; and then a little of them has been carefully restored. But let me cite particular instances.

At one time formal grammar was universally taught in the primary school. Children of seven and eight had to employ themselves in picking out nouns and verbs; children of twelve and thirteen had to parse an English sentence to the last shred, and analyse it to the last particle. When it was realised, at the close of last century, that most of this work had no effect at all on their written and spoken speech elimination rapidly took place. In most, if not all, primary schools grammar was taken out of the syllabus altogether. The tendency now is to put a little back. Not the full measure of former times, but just as much as will help the pupils to acquire a foreign language more easily.

Ever since the first unhappy days of payment by results, mechanical arithmetic—the manipulation of purely abstract numbers and the working of typical examples of the various rules—claimed

a large amount of the teacher's attention. Not a day passed—rarely, indeed, did a session pass—without the children having to undergo a severe drill in computation. They had to produce their daily tale of correct sums. With the advent of happier days came doubts respecting the value of the facility gained by these laborious exercises. It was seen that accuracy was secured at the expense of intelligence.¹ The children got their sums right, but they did not understand what they were doing; they could not apply the principles to the ordinary affairs of life. Then started an intelligence crusade. Mechanical arithmetic was dubbed stodgy and superfluous. Problems and practical arithmetic were proclaimed the only means of arriving at an intelligent grasp of the principles of numbers. The bulk of the schools adopted this faith and put it into practice. But it did not bring forth good works. The quality of the arithmetic rapidly declined. Even the problems themselves were badly done. The gist of the problem was too often obscured by a multitude of words, and its solution hampered at every point by sheer in-

¹ I do not in this chapter use the word "intelligence" in its strict psychological sense of inborn ability, but in the broader sense in which it is used by the teacher and the layman. It implies the application of reason instead of reliance on mechanical or rule-of-thumb methods.

ability to compute. It thus came to pass that a small proportion of the rejected practice in sums and tables found its way back.

Spelling is almost in similar case. In the nineteenth century a certain degree of accuracy in spelling was rigidly demanded. Long lists of words were put upon the blackboard and spelled aloud by the class. Dictation was a daily exercise, and a bad speller was put down as a bad scholar. But in the twentieth century the belief began to spread that no special devices were needed to teach spelling; it could be quite adequately learnt by ordinary reading. It was argued that if a pupil read widely he would spell well; if not he would spell badly. Indeed, he ought to spell badly, for to spell otherwise would be to "camouflage" his mind. The consequence was that spelling as a special exercise was in many schools dropped altogether. But the result was not encouraging, and it has now been taken up again—in smaller measure.

Chemistry was at one time the branch of science taken in a few chosen elementary schools. It was taught in a laboratory full of bottles and test tubes and gas jars. But it soon became the fashion to call such a room a bottle shop and to speak scornfully of test tubes and gas jars. And the bottle shop was dismantled and christened a practical workroom. And into this very work-

room the despised test tubes and gas jars are gradually finding their way back.

Drawing started in the elementary schools as lead-pencil drawing from flat copies. The bulk of the children did no other kind. But at the beginning of the new century this method of art instruction became suspect. And the flat copy and the lead pencil were banished in favour of the crayon, the brush, and the solid object. But they are returning to fill a lower and humbler niche.

Geography was at one time a thing of names and facts. Lists of capes, bays, rivers, and towns were learnt by rote. They were strung together without any kind of logical link. Then the regional geography people came along and preached a rational and scientific system. Geography, they said, was essentially not a factual thing, but a logical thing. The important point was to find rational connections—to teach the “why” and not the “what.” So the alert geography teacher began to hunt for reasons for everything and to cast out unrelated facts. His ideal map became a map without names, and his ideal lesson a lesson without information. But his ideal lesson was fortunately never reached. For to reason one must at least have something to reason about; and it became abundantly clear that many important geographical facts—facts

which every schoolboy ought to know—had to be accepted as ultimates, as things which may be described but cannot be explained. An attempt to explain them led to logic no sounder than that of Fluellen; there is a river at Monmouth (fact) and a river in Macedon (inference), and there is salmons in both (inference). The excluded facts therefore—or rather the most important of them—had to be brought back.

Just as an attempt was made to rationalise geography, so was an attempt made to derationalise geometry. It was held that Euclid's reasoning was too difficult for young minds, and that youths and maidens in their early teens should be limited to geometry that was wholly practical. They should know the "how," but should not trouble themselves about the "why." They should discover empirically geometrical truths which they could later in their school career learn to prove by deductive reasoning. Even for this later stage Euclid's treatment was considered clumsy and out of date. As a consequence, reasoning was left out in the early stages and Euclid left out in the later. There is now a tendency to restore a modicum of reasoning to the very first steps in the course. And if Euclid himself has gone for good, what he stands for is coming back.

Simultaneous work has undergone the same sort of change. In the old days it had a great vogue. Tables were chanted, words were spelled in chorus from the blackboard, recitation was learnt and rehearsed by the whole class together, and even books were read in concert. But this kind of work was so severely criticised that no school that valued its reputation would be found doing it. Simultaneous work was entirely taken out ; but a little bit is again being put in.

So with the three R's. At one time they were taught to all school children whatever their ages, even to babies in bibs. Then they were wholly discontinued with the under-fives. But now under Montessori influence they are, in modified form and in limited measure, being brought back again.

All these are examples, and not the only examples that might be given, of the Bessemer process at work in the schools. It is not, properly speaking, a case of the swing of the pendulum—a phrase with which we are wont to dismiss all cases of shift and change that we cannot account for. The pendulum swings from $+1$ through zero to -1 , and back again through zero to $+1$; but here the swing is from $+1$ to zero and back again a little way to $+1$.

What is the cause of this process, and what its value ? It is worthy of note that not only

were the ~~changes similar~~ in character, but they all took place ~~about the~~ same time. The last lustrum of the last century was a period of doubt slowly undermining the stability of school practice ; the first decade of the present century was a period of decarbonisation ; and the second decade a period of recarbonisation. Still more significant is the fact that these periods roughly correspond with changes in the attitude and general policy of the Board of Education. The middle of the nineties marks the death of the annual examination system. Previous to that the Board seemed to be mainly concerned with the removal of illiteracy among the poor. And the primary teacher had his syllabus of work rigidly prescribed. He could not devise his own scheme ; he could not develop his own ideas. But towards the end of the century he attained liberty—within certain wide and not insuperable limits. And the Board took up a vigilant attitude. It seemed to fear that the teachers would abuse their newly acquired liberty. But it soon found that such fears were groundless. The real difficulty was not that the teachers used their freedom badly, but that the bulk of them did not use it at all. They clung closely to the old system, the old routine, the old schedule of studies, as though they feared the responsibility which freedom always entails.

Then the Board took up a new rôle. Instead of remaining the conservative force—the fly-wheel of the educational system which kept up momentum generated elsewhere—it began itself to initiate change. It set about inoculating the profession with a healthy scepticism of old methods. And its inspectors, in abetting it, changed too. Instead of being detectives they became missionaries. Instead of entering the school, figuratively speaking, with a measuring tape and a pair of scales, they went in with a bundle of tracts under the arm. They no longer measured up the results of the year's work; they argued with the teachers and left a tract behind. They stumped the schools in the interests of Intelligence and the Broad Outlook. It was true that they inspected as well. But the inspection was done perfunctorily; the preaching, *con amore*. And when they examined it was generally designed to prove points of contest and to emphasise points of view. It was testing pressed into the service of propaganda. And, take it for all in all, very fine propaganda it was.

Supporting and accelerating this movement came, in 1905, the Suggestions to Teachers, the most noteworthy document ever issued by the Board of Education. It was noteworthy because it afforded a crushing criticism of the Board's early policy and set everybody asking whether

Saul also was among the prophets. It was a direct challenge of traditional views and traditional methods. It was more radical than the most radical of teachers had dared to be. And there is scarcely an instance of decarbonisation which does not find justification in the views set forth in this document. Not that these views were all new and original. Most of them indeed were derivative. For the spirit of revolt had already been abroad and had stirred the calmest of academic waters. And the educational psychologist had lifted up his voice and had urged us to accept nothing that rested on mere authority and custom, but to put everything to the test of rigid experiment. Opinion, he said, must everywhere give way to proof.

So much for decarbonisation. But how are we to account for the second step, recarbonisation? That is entirely due to the pressure of experience and experiment—the experience of the teacher and the experiment of the psychologist. It was found that with total exclusion of the suspected branch of study progress was impeded; with partial inclusion it proceeded apace.

The motives for adopting the Bessemer process were various. Many adopted it with reluctance, yielding at last to a subtly felt administrative pressure, or to a desire to be “in the swim,”

or to a surmise that "there might be something in it, after all." Nearly all started out in the belief that the process ended with elimination; the necessity for restoration was a later discovery. And not altogether an unpleasant one; for it afforded many the joy of saying "I told you so." Here the experimental psychologist was of great service. Indeed, he is still at work finding the limits of usefulness of the subjects whose claims have been challenged.

More important than the question of motive is the question of value. Has the Bessemer process benefited education or has it injured it? That it has not left things as they were is abundantly clear; but has it perceptibly pushed things forward? Every impartial witness will I think agree that it has; that its influence has been distinctly on the side of good. It has been an experiment on a colossal scale. And it has enormously enhanced our knowledge of educational values—of the possibilities of certain branches of instruction, and their limitations. It is true that the same knowledge might have been more easily gained by a series of careful experiments on a much more limited scale; but by no other means than by this large and universal trial could the verdict be readily brought home to the brains and bosoms of the multitudinous workers in the field of education. The larger experiment

has not only proved ; it has convinced. It has not remained mere theory ; it has become theory embodied in practice. It will be noticed that the elimination has always been the elimination either of drudgery or of premature reasoning ; and the result has been the removal from the curriculum of indigestible material and the reduction of dull mechanical grind to the lowest limits compatible with efficiency of learning.

The best way for a painter to get to know the full value of his pigments is to restrict his palette to a few colours. By so doing he learns two important things : he learns what these few colours can do, and he learns what they cannot do. And in learning what they cannot do he learns to what extent the rejected pigments are indispensable to his purpose. So with the suspected branch of study. To exclude it for a time is the best way to discover the degree to which it is educationally necessary. It is better than gradually eliminating down to a certain point and then stopping ; for it is almost impossible to discover by this means where the right point is. Indeed, one of the main merits of the Bessemer process is that the first stage of the process enables us to discover the quantitative limits of the second.

It must not be thought that the Bessemer process in education is entirely a thing of the

past. It is going on at the present day, and it will go on in the future. The elementary school has in the past been the main field of its operation. But that is because the elementary school is more completely under the control of one large administrative authority, is more closely in touch with modern pedagogical theories, is less weighted by tradition, and is more sensitive to changes in public and professional opinion. Still, to a small extent the process has been going on in the secondary schools, and to a yet smaller extent in the Universities. In the secondary schools we have witnessed an attempt to derationalise geometry, and to eliminate, as far as may be, formal grammar and the use of the mother tongue in the teaching of modern languages. In the Universities we have seen Greek brought before the bar of common sense and asked to make good its claims to special privilege. Indeed, the Bessemer process, or some similar mode of change and adjustment, is quite inevitable. It is inevitable because the dreamer and the practical man are always with us—both, in many cases, within the same skin. And the dreamer, the idealist, will always call for elimination, in the interests of intelligence and a broad outlook; and the practical man will always call for restoration, in the interests of efficiency and economy of learning. For intelligence demands

that mere mechanical work be reduced to a minimum, and a broad outlook demands that the curriculum be vitalised and enriched by the taking in of new material and the casting out of old.

CHAPTER XVI

ACCURACY

THERE is no charge that is more loudly and more persistently urged against modern methods of education than that they fail to produce accuracy. It is contended that the pupils we turn out of our schools, although perhaps a little more intelligent than those of the last generation, are far inferior to them in accuracy of knowledge and precision of achievement. Even the most intelligent are said to have glaring faults: the letters they write are sensible, but badly written and badly spelled; the sums they work are ingenious, but the answers are generally wrong; their drawings are pretty, but are not like the models; their information is wide, but inaccurate; their replies to questions are often shrewd, but rarely correct; they can argue about geographical data, but they know very little geography; they can do many things indifferently, but they can do nothing well.

Such is the charge. And there are three ways of meeting it. First, it may be flatly denied by contending that the pupils are not really less

accurate, but ~~only~~ seem so. The second way is to admit the inaccuracy and to rejoice at it. The third way is to admit the inaccuracy, to regret it, and to cast about for means to remedy it. Each of these points of view has its advocates, and for each there is something to be said. For the last there is very much to be said.

Those who deny the reality of the lapse have to explain the appearance. If it is not so, why does it seem so? And this is their reply. The accusation mainly comes from the employer of labour. He says that the boy of fourteen, fifteen, or sixteen, is not what he was in days gone by. But this plaint is not new: it is perennial. He has always said it. He said it in the days of our grandfathers and he will say it in the days of our grandchildren. It is only a particular instance of the general tendency to belaud the past and to belittle the present. This tendency is due to the fact that as a man grows older his enlarged experience renders him more critical—more *blasé* and difficult to please. He judges by standards which he thinks are fixed, but which are as a matter of fact steadily rising. Viewing the past through the distorting medium of memory, his judgment plays him false. Man being, as Bacon puts it, more impressed by positives than by negatives, a few striking instances of success remain in the memory: numerous

instances of failure drop out. Thus the decline of accuracy in our schools takes its place beside the change in the climate of England and the increasing degeneracy of the Royal Academy exhibition. This line of argument would carry more conviction if we had no documentary evidence against it. But we have that evidence. There is in existence a large number of tests given to school children in the annual examinations of the eighties and early nineties, and the results of those tests were scheduled for purposes of grant. When those same tests are set to-day to children of the same age the results are palpably and consistently worse. Account for it as we may, there can be no doubt whatever about the fact. Taken as a whole, the work done in our schools—our primary schools at least—is less accurate than it was a quarter of a century ago.

The whole-hearted defenders of the present system throw the burden of blame on the past. They contend that the degree of accuracy attained to-day is natural and normal—is just as great as is compatible with an all-round development; while the accuracy of former days was secured at the sacrifice of qualities higher and more valuable than itself. In fact, it is not that the present is too inaccurate, but that the past was too accurate. For in order to attain that inordinate degree of accuracy the pupils had to

work on a syllabus narrowed to the most meagre limits, to practise exercises that were always dull and often meaningless, to forgo the delights of a mental fare suited to their appetites and digestions. Then they were highly trained on a starvation diet: now they are modestly trained on a generous diet. And the latter course will prove the better in the long run.

As for the employer of labour, his demands are unreasonable. What he virtually asks for is an experienced beginner, an accomplished tyro, a swimmer who has never been in the water. Of the alternative merits, mechanical accuracy and intelligence, the old employer got the former at the expense of the latter, and the modern employer the latter at the expense of the former. And the modern employer is not aware that he has secured far and away the better bargain. For while mechanical accuracy may rapidly be improved by a few weeks' intensive practice, the development of intelligence is a slow and tedious process, extending over many years, and ramifying into many lines of activity. It is this very pursuit—the pursuit of a wider and deeper culture—that has led to the reduction of accuracy to reasonable limits. The invasion of newer branches of study and the expansion of the old have led to the curtailment of the time devoted to spelling, to abstract arithmetic, and

to learning things by heart. Less time means less practice, and less practice less accuracy. Having had to choose between incompatibles we chose what we believed to be the better.

One of the weakest points of this defence is the assumption of an antithesis between mechanical accuracy and intelligence. It is implied all through that both cannot be secured—that to gain the one is to lose the other. But there are no grounds for this assumption. There is in reality no competition or conflict between the two factors ; or, at least, there need not be. Each may be made to help the other. Progress in knowledge is only rendered possible by consolidating each position as one goes along. And although in comparison with the new and vital knowledge dealt with by an alert intelligence the mechanised knowledge of rote-memory seems lifeless and inert, yet it constitutes one of those dead selves which serve as stepping stones to higher things. To get to know a thing exactly and precisely—to be able to hold it with confidence and produce it with ease—is a distinct economy of the mind's assets. Indeed, to disparage the mechanism of the mind merely because it is mechanism is a mistake. In its right place automatism is an excellent thing.

The defence has other points of weakness. To suggest, for instance, that accuracy is always of

a mechanical nature is to falsify fact. It is true that unless the bulk of our habits, our automatic processes, the things we do and think with a minimum of attention—unless these are performed with fair precision it is inevitable that the voyage of our life be bound in shallows and in miseries. Unless we are accurate in mechanical routine we have but small chance of being accurate in the higher activities of thought. But not all accuracy is of a mechanical kind. Indeed, it is to the realm of ideas that it essentially and originally belongs. It is there that one finds its source and its secret. It is there, too, that one finds the motive that impels to its pursuit: the same motive, in fact, as that which impels to the pursuit of truth. For the love of accuracy is the love of truth, and to attain the one is to attain the other. We cannot, therefore, agree with those who think meanly of accuracy, who regard it as the virtue of little minds. But let us examine the concept a little more closely.

The notion of accuracy implies certain standards by which our thoughts, words, and deeds may be measured and evaluated. Our products are accurate to the degree that they conform to these standards. And these standards are of two kinds, natural and conventional. A natural standard is founded on the very nature of things. We cannot, without doing violence to our intel-

lect, conceive of two and two making anything else but four ; we cannot without doing violence to our experience hold that water solidifies when heated ; we cannot without doing violence to the laws of evidence believe that Julius Cæsar discovered America. These are not things that the mind of the thinker makes ; they are things that it finds. They belong to an objective and given order of things. The universal constraint to belief is most clearly felt in the realm of mathematics. Here the very constitution of our minds will permit of no alternative views. One view is inexorably right and all other views inexorably wrong. But when we come to consider spelling we fail to find this peculiar constraint. There is no principle in the human intellect which sternly demands that "yacht" should be so fantastically spelt. There is no natural law which compels a certain sound to be represented by a certain sign. The little girl who asked her teacher what "k-a-t" did spell if it did not spell "cat" was neither stupid nor impertinent. She was merely puzzled by the arbitrariness of the standard of spelling. It is, in fact, merely a conventional standard, liable to change in the future as it has changed in the past. It is possible to evolve the laws of mathematics from one's inner consciousness, for time and space and number are always there for one's investigation ; but

no amount of patience and penetration would enable one to evolve spelling from one's inner consciousness. This confirms the popular view that a certain measure of mathematical ability is an inevitable concomitant of intelligence, while ability to spell is not. Napoleon regarded spelling as beneath the notice of a man of genius. Indeed, many an able man has spelt atrociously, but he has never computed atrociously. If he could not spell "beans" he knew how many made five. For bad spelling brings no inevitable maladjustment to the outside world; bad computation does.

There is another distinction that may be made, and that within the domain of mathematics itself, where the concept of accuracy seems to be more clearly defined than anywhere else—the distinction between absolute and relative accuracy. Absolute accuracy belongs to abstract numbers only. When we count, when we add or subtract, we can assure ourselves that our result is absolutely right. Between the view that two and two make four and the view that they make five there can be no compromise. We cannot by splitting the difference get at a closer approximation to the truth. One only is right, and absolutely right. And the same is true of logic. There is a right and a wrong, a valid and an invalid, an accurate and an inaccurate, a true

and a false. And the barrier that separates the members of each pair is impassable. But as soon as we apply our mathematics to the world of concrete experience we find absolute accuracy unattainable. When we measure and weigh, the results we get are approximate only. If two measurements of the same quantity appear to be identical it points to a defect of observation or of the instrument by which we measure. Closer observation or finer apparatus will give measurements that consistently vary. The most we can say of a certain result is that it is approximately correct, that it is as accurate as the means at our disposal will permit. It was, indeed, this fact, the fact that our ideas outstrip our concrete experiences, that led Plato to formulate his Theory of Ideas. The perfect square is an ideal square, of which the imperfect square with which alone we are acquainted in the world of matter is a poor and mutilated copy. Even when I count material things instead of measuring them (though, as a fact, counting is in this case a rough mode of measuring) the result I get is still merely approximate. When I count three apples and four apples and call them seven I am, in the concrete process, counting with a variable unit. The greengrocer knows this and sells by weight.

There is a sense, too, in which accuracy is

relative to purpose. The degree of accuracy required in making the hairspring of a watch is very different from that required in making the leg of a table. If a friend tells me his age he mentions the number of years, and troubles me not with the odd months and days; but this rough approximation will not do for an astrologer who wishes to cast a horoscope.

Many an attempt at accuracy is misdirected through aiming at a meticulous precision in detail while careless of the bigger things. The amateur bacteriologist who professed to have found six million and one microbes in a cubic inch of Thames water admitted, when challenged, that he was quite certain about the one: it was the six million he was not quite sure about. Huxley in the first edition of his *Physiography* gave to the nearest pound the weight of carbonic acid gas on a square mile of the earth's surface; but the amount given was, through the displacement of the decimal point, ten times as great as it should have been. And it was some time before anybody found it out. Even with the calculation rectified, the data were far too loose and variable to justify so precise an estimate.¹

In the realm of pictorial art the notion of accuracy is peculiarly elusive, for the simple

¹ This example is given by L. C. Miall in his *Thirty Years of Teaching*.

reason that we have a double standard. What is meant by saying that a drawing is accurate? If it is a copy of another drawing we mean that it resembles it faithfully, line for line and mass for mass. If it is the drawing of an object we mean that it rightly represents the appearance of that object as seen from one fixed point of view. Let us for convenience' sake call this photographic quality—this resemblance to an external model—verisimilitude. Verisimilitude aims at illusion—at making a flat drawing look like a bit of the real world. Now it will immediately strike the reader that verisimilitude is not the quality—at least, not the essential quality—by which we judge works of art. One may, in fact, find more verisimilitude in a good art school than in a gallery of old masters. A student's drawing may be very like Nature and yet be worthless: a master's drawing may be very unlike Nature and yet be priceless. It is clear, therefore, that we are judging by some other standard of value besides the external standard. And it is a standard very difficult to fix and define. The only thing we can say with certainty about it is that it is internal, not external—a mood of the artist's mind and not a mode of the material world. It is a subjective, not an objective, standard. If the word accuracy is at all applicable here it will mean the degree to which the

drawing expresses a vague "something" in the artist's soul. That something may be intellectual or emotional or spiritual, or a mixture of all three. Its very vagueness is the attribute that justifies and compels its expression.

But what bearing has this upon the work of the school? It has often been observed that the drawings of quite young children, of children in the infant school, are wonderfully vital. They are full of spirit and movement and of a quaint significance. But as the children grow older their drawings gradually lose this distinctive quality. They are more skilful, more clever, more like the models; but their peculiar vitality has gone. They have gained verisimilitude and lost spirituality. To say that these early expressional drawings are inaccurate is to use the term in a limited sense. It is true that they fail to conform to an external standard, but there is every reason to think that they conform closely to an internal standard. So the notion of accuracy as applied to drawing has a double reference; and what seems inaccuracy is often accuracy of a higher order—allegiance to a higher ideal.¹

So far we have looked at accuracy in its outward manifestations only; as a product of mind and not as a process. We have now to consider its inner nature—to determine its place and

¹ See, however, *The New Examiner*, pp. 46-50.

function in the mind itself. It is often loosely referred to as a "faculty" and classified with observation, memory, imagination, and reason. It is nearly always assumed to be a simple and unitary power of the mind which works in the same way whatever the line of activity; which acts as a whole, develops as a whole, is trained as a whole, and decays as a whole. It is supposed that a pupil may have his accuracy trained just as he may have his voice trained; and that he may lose his accuracy just as he may lose his voice. Now, the first and most pertinent thing to be said about this doctrine is that it is false. And the second thing to be said is that it is mischievous. Strictly speaking, it is not accuracy that a man possesses but a series of accuracies; and those in varying degrees. He may be punctiliously accurate in some things and hopelessly inaccurate in others. The letters he writes may be quite correctly spelt and yet bristle with the wildest misstatements. A grocer who is notoriously inaccurate in his accounts may be strictly accurate in his weights. Indeed, the unequal distribution of accuracy among the divers lines of man's activity is palpable to the least observant. It is a quality which we all have in degrees and in places. To be without it entirely is impossible. The greatest of liars tells on the whole more truths than lies.

A certain measure of accuracy is presupposed in the mere fact of living at all. For commerce between the self and its world cannot be carried on with coinage that is entirely false. Indeed, the mind's ineradicable tendency to put straight its experiences inevitably gives rise to such accuracy as will serve for the most pressing purposes of life. And in the early stages at least, a process of finer adjustment is constantly going on. But it takes place slowly, and it takes place unequally. Formal education speeds up the pace, but it does not level the inequality; not, at any rate, unless this levelling is specially aimed at. There is only one way to cultivate accuracy in all the branches of study, and that is by cultivating it in each. It is not safe to rely upon accuracy in one subject spreading automatically to other subjects. It may, or it may not. Even when it does much of it is lost in the transfer. Accuracy in arithmetic is one thing, in geometry another, and in spelling yet another. And each involves the gradual building up of a group of specific habits. Some of these habits are probably common to several subjects; some, perhaps, are common to all. But for pedagogical purposes it is safest to assume that each group belongs exclusively to its own subject.

But is accuracy nothing more than a congeries of habits? Nay, it is more than that. It is an

idea as well—a notion, a concept—and a very important one too. Pupils who have studied arithmetic at all know well what “accurate arithmetic” means; and the knowledge always carries with it a certain degree of motivation—of compelling power. Even the most careless of pupils would rather get a sum right than get it wrong. A general idea of this kind, tinged with emotion and charged with power to impel, one may fittingly call an ideal.¹ The same analysis holds good of accuracy in every other branch of learning. Each comprises a bundle of habits and an ideal. And it is the ideal that guides and regulates the formation of the habits; that preserves them and extends them and organises them. It is, moreover, the generalising factor—the factor which renders possible the extension of accuracy from one type of subject-matter to another type of subject-matter. Finally, all these separate and parochial ideals may be co-ordinated under one broad imperial concept—the ideal of accuracy in general. And the teacher and his class should ever be pressing forward to this high ideal and ever returning to realise it in specific habits. It is only so that the body can be made the servant of the soul. It is only so that habits can become effective aids to spiritual growth, and ideals effect-

Bagley has put forward this theory with much persuasiveness in *The Educative Process*.

ive agencies in practical life. To do this is no easy task. It cannot be done by preaching; it cannot altogether be done by teaching. For ideals are not so much taught as caught. They are absorbed from the very atmosphere of the classroom, from the attitude and example of the teacher, and from the corporate life of the school. But however they be imparted, to impart ideals of accuracy and thoroughness in all things is one of the greatest benefits a school can confer.

I have dealt with accuracy as a group of habits, and accuracy as a controlling ideal. I now proceed to consider in somewhat fuller detail the bearing of these concepts on school studies.

Etymologically, accuracy means bringing to bear upon the task in hand as much care as possible. And, indeed, a great deal of the inaccuracy that occurs both within the school and without is due to pure carelessness: insufficient trouble is taken to get the thing right. But inaccuracy is not always carelessness; it is often ignorance—ignorance of the subject-matter which serves as the standard of reference. While its prevalence is ultimately due to the belittling of certain fine old ideals, it is immediately due to remissness in three respects—memorising, practice, and verification. Let us take the case of spelling. It has been thought by many that

there is no need to make special provision for the teaching of spelling: it can be learnt quite adequately from ordinary reading. But experience and experiment have failed to justify this view. To be able to read it is necessary to know the words up to the recognition point only; to be able to spell they must be known up to the reproduction point. And in all matters of memory the point in reproduction is always much higher than the point of recognition. In fact, words must be analysed and their spelling memorised.

Some, again, have held that spelling can be taught entirely by dictation—by unprepared dictation. But dictation is a means of testing spelling, not of teaching it. As in spelling, so in arithmetic; we cannot dispense with learning by heart. The ultimate ground for our calculations is the natural number series, one, two, three, etc. But if we referred all our calculations to this ultimate standard—if we reduced them all to counting—the time and labour expended would be enormous. We have, in fact, to fund the results of our past calculations to form such proximate standards as are recorded in the addition and multiplication tables. And these should be so thoroughly committed to memory that they can be reproduced with automatic precision. For nearly all the inaccuracy

in abstract arithmetic can be traced to the imperfect memorising of tables. Many teachers are fond of devices which enable their pupils to escape this obligation, particularly in the matter of addition and subtraction. Instead of simply remembering—after having discovered it—that 8 and 7 make 15, they are taught to say 8 and 2 are 10 and 5 are 15. And this has to be done every time they add 8 and 7; and done in the name of intelligence. To decompose numbers in this way once, or even half a dozen times, may be considered an act of intelligence; but to do it over and over again is to render it automatic. Thus a simple and efficient automatism is rejected in favour of one that is complex and less efficient. So in history and geography, and indeed in every branch of study, there is a certain nucleus of knowledge that should be so memorised as to form a trustworthy and mobile force completely under the control of the student and kept efficient by constant practice.

The habit of verifying results has in certain directions been lost and in other directions gained. Time was when every sum was proved, or in some other way verified. In subtraction the remainder and the subtrahend were added; in division the quotient and the divisor were multiplied; in algebraic equations the found value of x was verified by substitution. But

those practices have fallen into disuse. Rarely even does the pupil look over the sum the second time. The habit is wanting and the motivating ideal is weak. The difference between getting a sum right and getting it wrong is not so keenly felt. The pupil is not so proud of getting it right, not so ashamed of getting it wrong. In the way of verifying spelling and facts there has been considerable advance. Children use dictionaries and encyclopædias nowadays much more than they did in the days of our fathers.

Since much of the inaccuracy of the present day arises from a revolt against the abuse of accuracy in the past it behoves us to guard well against a repetition of that abuse in the future. The abuse has generally taken one particular form: that of attempting to secure a meaningless accuracy. Meaningless to the pupil, that is; and meaningless because the subject-matter itself was meaningless. This tendency has been most noticeable in the infant school. For here children have been drilled to accuracy in arithmetic before they could understand the significance of arithmetic; in reading before they could realise the value of reading; in spelling before they could perceive its use and purpose; in drawing from formal copies when they really wished to externalise their own ideas. And the drilling merely dulled them, and the accuracy

was a meaningless accuracy. All because the pursuits were premature. For, if I may be pardoned so obvious a truism, accuracy in premature pursuits is itself premature. Nevertheless, in their own pursuits—in the occupations proper to their age and development—in the acquisition of control over limb, hand, and tongue, and the building up of good habits—the wish to be accurate is merely the wish to do well, and no school child is so young as not to feel that wish, or so precocious that he may not sometimes be allowed to indulge it. The teacher with an understanding heart will not fail here—will not apply pressure where pressure is harmful, and will be more prone to use as an incentive the lure of praise than the goad of blame. He will remember that accuracy is relative to age as well as relative to purpose; that in most things it admits of degrees; that what is not accurate enough for a youth is often accurate enough for a young child. And every wise teacher, whatever his grade or status, will aim at securing the accuracy of the scholar, who is careful in the things that matter, rather than the preciseness of the pedant, who is punctilious in the things that do not matter. With these reservations in mind he will be in little danger of over-emphasizing the ideal of accuracy. For, after all deductions have been made, it is still a noble and

inspiring ideal. It is the morality of the intellect : it prescribes what it ought to strive for in the pursuit of its own proper ideal. For the extent to which we are accurate in our thoughts, words, and deeds is a rough measure of our fealty to Truth.

and good God. Q.—~~Are~~ there not many things you would like to know about? A.—Yes, very much. Q.—Pray, then, what is bread made of?”

Thus does the authoress (the book is written “by a lady”) pass from the making of worlds to the making of bread. And with equal inconsequence she asks later on, Who was Hasselquist? And who first wore tight silk stockings? She also inquires respecting kelp, weld, alkanet, verditer, ambergris, Balm of Gilead, goulard, assafoetida, storax, calamine stone, annato, and fustic. Not all the information in the book is of this exotic nature, but nearly all guides or stepping-stones to knowledge revel in spices and aromatics; and they all attach high importance to the fact that it takes many men to make a pin. Even Charles Lamb, gentlest of critics, waxed wroth over the nonsense that Mrs. Barbauld and Mrs. Trimmer wrote in his day for the improvement of the young.

In the year 1831 appeared a thin volume entitled *Lessons on Objects, as given in a Pestalozzian School at Cheam, Surrey, by Elizabeth Mayo, with an Introduction by Dr. C. Mayo*. In this introduction an account is given of how Pestalozzi at Stanz started a series of lessons on common topics illustrated by engravings, and how one day when the picture of a ladder was put before the class a lively little boy exclaimed:

“ But there is a real ladder in the courtyard : why not talk about that ? ” That little boy was the inventor of the object lesson, for Pestalozzi adopted his suggestion and thereafter taught from real objects. It is true that he soon discontinued this method of teaching, but Dr. Mayo and his sister took up the thread at Cheam. This little book is the result. It is worthy of our attention for various reasons. It is the first book of its kind published in England ; it has been reprinted time after time ; it has formed the basis of innumerable other books on common objects, and it presents the object lesson in its purest form. It permits of no compromise with reality in the way of pictures or models : the real object must be actually there. There is to be no smuggling in of extraneous information by the teacher, no introductory conundrum, no artificial forcing of the subject-matter under stereotyped heads. All the data of the lesson must lie before the children’s eyes. By the exercise of sense-perception they must themselves find out all about the object, its forms, its parts, its properties, and its uses. They are to look at it and feel it and taste it, and smell it, and tell the teacher the results of their investigations. It must be an exercise in the acquisition of knowledge at first-hand. Moreover the book stands as the embodiment of a clearly defined

theory—the theory that it is possible by a specific act of observation to cultivate a general faculty of observation, and that the dominant aim of the object lesson is to cultivate this general faculty. A subsidiary aim is acknowledged by the author—that of increasing the pupil's vocabulary.

The lessons are arranged in three series, the first series providing for the observation of qualities only, the second for the observation of structures as well, and the third containing a tag end of explanatory information which the author inserts on the plea that it serves as a stimulus to observation. The book begins well; the rules of the game are strictly observed. The six properties of glass (it is bright, cold, smooth, hard, transparent, and brittle) given in the first lesson can all be investigated at school. But informational elements creep in more and more as the lessons proceed. Many of the qualities set forth by the author under the heading of Beer, for instance, would in a respectable school have to be accepted on the mere *ipse dixit* of the teacher.

In precisely the original form Miss Mayo's book seems to have had no great vogue; but it was several times reprinted in a modified form and it proved the parent of a swarm of similar manuals. But the purity and simplicity of Miss

Mayo's lessons were soon lost. The informational factor began to ~~swell~~, and the observational factor to shrink. In fact, the object lesson which is so familiar to the present generation of teachers represents a compromise between two demands—the demand for useful information on the one hand and the demand for a training in sense-perception on the other. And the stringency of the rules was relaxed. The actual presence of the object came to be regarded as not absolutely necessary; it was merely desirable. Pictures were often deemed to be satisfactory substitutes. And many an object lesson has been given without illustrations of any kind—the play of *Hamlet* with the Prince of Denmark left out. The subject-matter was no longer set forth as a chaotic list of adjectives but was systematised and arranged under heads. Books containing notes of lessons began to flood the market, and by the 'eighties the object lesson had become an established institution in the people's schools.

Let us examine the avowed purpose of these lessons. The aim of the pre-Pestalozzian period was to impart information—to edify—to endow the child with a rich and varied store of useful knowledge. And, in spite of protestations to the contrary, it is the essential aim of the bulk of our modern object lessons. When we find a lad of fourteen ignorant of the most common-

place facts; when he, like the youths pilloried by Thring, talks about the cantering whale and the carnivorous stag, we at once put it down to defective schooling. We think he ought to have been taught the structure of the whale and the dietetic habits of the stag. Definite lessons should be given on these matters. But do we realise to what this position commits us? If the reader will take the trouble to draw up a list of the various facts which he thinks a child should know when he leaves school, and if by the help of friends and an encyclopædia he will try to make the list as complete as possible, he will, even if he leaves out such items as come within the scope of the ordinary school subjects, soon find his list assuming alarming proportions. In fact, a list of the things a boy ought to know would fill a very big book. And as it is impossible to impart the whole of it by means of fixed and formal lessons, the question arises, should we impart any of it? If so, how is the selection to be made?

This heterogeneous knowledge does not stand on the same footing as the recognised branches of study. These have some sort of organic unity. There is unity and continuity of interest and unity and continuity of subject-matter. Each is definitely a specific science, or a specific art, or a mixture of the two. Is there any

justification for putting into the curriculum an olla-podrida, which is neither the one nor the other? In geography or mathematics we try to develop knowledge systematically. In no course of lessons in general information is this possible. The subject-matter is in itself too fragmentary and incoherent. It seems indeed as though there were an inevitable contradiction in giving instruction that is specific in knowledge that is general. Or are we to regard the ordinary curriculum as using up the larger areas of human life, leaving the remnants to be dealt with under the head of useful information?

These questions can best be answered by considering the way in which we ourselves have acquired our store of miscellaneous knowledge. Some of it has simply come to us, some of it we have picked up, and some of it we have found after diligent searching. Very little of it is due to definite instruction at school. And the store of each one of us differs from that of everybody else. Each individual mind in its commerce with the world gathers its own treasures in accordance with its own needs, its own interests, and its own scale of values. And these possessions are not so casual and heterogeneous as they seem. They are the natural accessions to those growing systems of knowledge which it is the main business of formal teaching to organise and unify.

And of the three sources of supply—observation, conversation, and books—each is open to the schoolboy as to the adult, and each is more abundant and more accessible than in days of old. Travelling is cheaper, educational visits and rambles are part of the school routine, books are more plentiful. The pupil has more facilities for coming into contact with minds better furnished than his own: and where he used to read one book a year he now reads a dozen. There is indeed no lack of material and no lack of opportunity. The teacher's problem is to make the pupil grasp the opportunity and master the material. He has to strengthen his natural motives for extending the range of his knowledge and to supply him with new ones; he has to inspire him and to encourage him; he has cunningly to exercise his mind so that it gets hungry for facts. And as every lesson and every casual conversation affords the teacher his chance there seems to be neither need nor room for formal lessons in general information.

And, indeed, teachers acknowledge this, and have long ceased to urge the informational plea; they have fallen back upon a second line of defence, which is that it cultivates a faculty of observation. They maintain that when a child is made to observe carefully a piece of iron he is not merely learning certain facts about iron, he

is not merely gaining an interest in iron and kindred things, but he is increasing his aptitude and ability to observe generally—to observe anything and everything, at all times and at all places. Now whether this is so or not is not a matter that can be settled by reasoning from first principles ; it must be submitted to the only authoritative test—the test of experiment. It has been so submitted, not once, but often ; and the verdict is against it. It does not mean that there is no general effect of a specific bit of observational work, but that the general effect is neither so great as was supposed nor of the kind that was expected. In fact, to defend the object lesson on observational grounds is to rely upon a psychological theory long since discredited.

Moreover, the observation that is supposed to take place is too often of a spurious kind ; for it frequently means the mere giving of big and unfamiliar names to things that the children have learnt long ago. Transparent and opaque, for instance, are words that have had a strange fascination for the giver of object lessons ever since the days of Mayo. The children know very well that they can see through the window and that they cannot see through the teacher. They can express these facts quite adequately in their own way. When they can use the words transparent and opaque they know no more about

the window and the teacher than they did before. They have made no observational discovery; they have merely debased their natural vocabulary with what is to them a bit of pedantry. Fortunately, the new words do not mix well with the old, and drop out when the school is changed for the playground or the home. No man, I venture to think, would care to hear his offspring say that the marmalade is translucent, the egg aromatic, or the scarlet runners membranaceous. And yet Mayo would have quite a young child use these fearsome words.

We cannot go so far as to say that the object lesson has no leg to stand on; it has legs, but they are such feeble ones that it is easily shouldered out of the school by its own offspring, Nature Study. For this is the true succession: useful knowledge begat object lessons, and object lessons begat Nature study. And there has always been a tendency for the first to be displaced by the second, and the second to be displaced by the third.

To revert to our original thesis, science has made three distinct attempts to gain a foothold in the people's schools, each attempt being more successful than its predecessor. Useful knowledge presents the data and results of science without showing how we arrive at what we know; object lessons afford some insight into scientific

method, but leave the conclusions “ patchy and scrappy ” ; Nature study exemplifies some of the simple ways in which we work and think when we build up an organised system of knowledge to which the name science fitly applies.

CHAPTER XVIII

THE ADVENT OF NATURE STUDY

NATURE STUDY as a school subject is a thing of the twentieth century. In educational literature published before 1900 it is difficult to find the term at all; now it is difficult to escape it.

The beginning of the century marks the beginning of a struggle between Object Lessons, whose obituary I wrote in the last chapter, and Nature Study for one and the same place in the school curriculum. It had long been felt that science should in some way be represented in the scheme of studies almost from the very start. But how? It was clear that laboratory work was quite unsuited for young children; it was clear that formal instruction in a specific science, however well illustrated by the teacher, was equally inappropriate. What was needed was a propædæutic—a preliminary and informal course, which would lead up to the study of science proper—something that would engender the right attitude, the right spirit, and the right method. It was thought at one time that this need could be met by a good course of object lessons. This

would bring the young mind into direct contact with reality—with the original source of our knowledge of the material world—and would afford it exercise in discovering truth for itself. But the object lesson failed to fulfil its promise. Its pretensions broke down at certain vital points. It was not rooted in any deep and abiding interest of child nature ; it did not lead to cumulative and organised results ; its method was rarely the real scientific method ; if a truth was arrived at by the pupils, that truth was a fact, and not a principle ; and its purpose so far as it consciously existed in the mind of the teacher was based on a discredited psychological theory—the theory of formal training.

It is not to be wondered at, therefore, that object lessons began to be supplanted by Nature study. The significance of the change was not at first realised. It was thought by many that it did not mean the abolition of object lessons, but a mere restriction in the choice of objects. Instead of dealing with both natural and artificial products we limited ourselves to the natural. It was simply carrying on the old firm under a new name. But this was a mistaken view. The Nature lesson differed so fundamentally from the object lesson that different names, different methods, and different teaching devices became a necessity. The avowed aim of the object

lesson is either to impart information or to cultivate a supposed faculty of observation. The lesson leads nowhere. It is, in fact, both insulated and static. The essential aim of the Nature lesson, on ~~the~~ other hand, is neither to impart useful information nor to cultivate faculties, but to generate in the child a sympathetic interest in his natural surroundings—an interest which will ripen into the true spirit of scientific inquiry without losing the joyous impulsion of childhood. Nature study is concerned with an object not as fixed and stationary, but as representing a stage in a series of changes. Natural history, like every other kind of history, deals essentially with events. An episode in the life history of an organism constitutes one of the best subjects for a Nature lesson. Structure is of less interest and less importance; or, rather, it is of importance only in so far as it has a bearing on function. The end of a good Nature lesson is not a fullstop, but a comma. What happens next? is the silent query in every pupil's mind.

The aim and purpose of Nature study differing so widely from the aim and purpose of object lessons, one would naturally expect to find a corresponding difference in the methods of instruction. The object lesson used to be called a gallery lesson. The children had no desks for

drawing and no books for taking notes. They sat more or less passive while the teacher discoursed and questioned on the object. The only notes were the teacher's notes written on the black-board. The only object was the teacher's object held in front of the class. In the Nature lesson the teacher passes into the background. And, instead of the object being brought to the class, the class is taken to the object; for the object without its environment is incomplete. To do this it is not always necessary to go outside the walls of the school. Seeds can germinate, bulbs grow, and tadpoles develop into frogs within the classroom; but even so, to carry out the Nature lesson in its true spirit each individual child must come into sufficiently close contact with the thing he is studying to see it from various points of view, and to observe and record its changes for himself. Activity on his part is essential. Nature study does not mean the mere acceptance of facts about Nature, but the study, the assiduous interrogation, of Nature. Stuffed birds and impaled butterflies serve well as models for drawing—which, indeed, is the best way of learning structure as distinct from function—but for purposes of Nature study they are almost useless. Not, indeed, that we should restrain the collecting instinct in children, for there is much value in the pursuit of specimens and in their classifica-

tion ; once the collection is made, its main effective influence is over. There is some truth in the remark of Emerson's that when a man starts putting lizards in a bottle he puts himself in a bottle. Object lessons have always been given in the classroom, but Nature study is essentially an open-air subject. Its lecture room is a field, and its laboratory a garden. The object lesson is invariably a unit complete in itself. If it has any connection with the previous or subsequent lessons, that connection is of the most casual and superficial kind. Beginning with the introduction and ending with the blackboard summary, each lesson takes up its allotted time—always the same time—and then is put away like a book on a shelf. A course of Nature study, on the other hand, cannot be chopped up into equal self-contained units. Rarely is a Nature lesson a complete story : it is an instalment of a serial.

The scientific study of children's likes and dislikes confirms the popular view that all normal children are interested in Nature. Was there ever a little girl who did not love to pick flowers, to chase butterflies, and to feed the birds ? Was there ever a boy—a real human pomivorous boy—who was proof against the allurements of a white mouse, a tame rabbit, or a guinea-pig ? The healthy child sees in Nature that glamour

which Wordsworth has recorded in unforgettable verse. Is it inevitable that the vision should fade into the light of common day? Whatever changes may take place in the child's attitude towards Nature as he grows older, it is at least possible to prevent it from passing from interest to indifference.

The view that Nature study is the best means of approach to the careful and exact study of science is not universally accepted. Some teachers prefer giving the younger children simple lessons in the rudiments of physics and chemistry. They argue that oxygen is simpler than water, and therefore that a lesson on oxygen should precede a lesson on rain; that atoms and molecules are more fundamental and universal than iron or sulphur, and should therefore come before them in the same syllabus. It is the old fallacy of mistaking logical sequence for psychological sequence, of ignoring the fact that the method of acquiring knowledge follows far more closely the line of historical discovery than the line of logical arrangement. And Nature lore is immemorially old, while exact physical science is a thing of yesterday.

Lessons on gases never seem quite suitable for young children. The commoner gases make no sensory appeal; they can neither be seen nor felt. The only time when the children rise to

the occasion is when there is a bad smell or an explosion. Even lessons on the three states of matter, simple though they seem, fail as a rule to arouse any degree of enthusiasm. The children know the practical difference between them as well as they know the difference between eating, drinking, and breathing, and the finer distinctions drawn by the teacher seem to them to be the veriest hair-splitting. It is true that a liquid takes the shape of the vessel that holds it. But what of it? Who cares what shape a liquid is? A certain teacher in recapitulating with a class of young boys a lesson of this kind failed to get from them a definition supposed to have been memorised. They got so far as "A solid is a piece of matter that retains its own shape and size——" and then stuck fast. "If . . ." prompted the teacher. "If you don't knock it about," suggested one boy. "If you don't chip a bit off," suggested another. But these sensible and excellent suggestions were scornfully rejected in favour of some scientific nonsense about temperature and external force—nonsense to them at any rate. Indeed, I find that young children, after receiving lessons on these matters, rarely acquire ideas more illuminating than those of a little girl in a Welsh school who said in her examination paper: "The only difference between a solid, a liquid, and a gas is that they are

not the same." And quite enough difference too—for a little girl.

In spite of a few sceptics, it is now widely recognised that Nature study makes an admirable porch to the temple of science. Yet even its most enthusiastic advocates admit that as a school subject it presents difficulties. Especially in town schools. Where are the specimens to come from? How can slum children be brought face to face with Nature? In London, where the difficulties are greatest, enthusiastic teachers, backed by a fostering Council, have abundantly shown that where there is a will there is a way. There is often a tendency to overlook simple and ever-present resources. Grass, for instance. It finds its way everywhere. And, as Mrs. Meynell points out, but for the vigilance of vestries, grass would sweeten and reconcile everything. And of the spade that uproots it she remarks that to call that spade a spade hardly seems enough. Then there are trees. Trees are the biggest protest made by Nature against London brick and mortar. These vegetable giants ruralise the giant city and give it glimpses of the passing and the pageantry of the seasons. If a census were made of the trees of London the tale would astonish us. They flourish in the very heart of the City. The boy in the slummiest of slums lives within a few minutes' walk

of a tree of some kind. The Old Kent Road is not a very sequestered place, and yet in half a mile of its length I counted eighty-five large plane trees. Is there any city in the world so rich in planes as London? Has it not indeed a variety of its very own?—the London plane—which mysteriously made its appearance here not much more than a hundred years ago, nobody seems to know how or whence; and which now turns miles of streets into leafy boulevards. Trees, indeed, form excellent material for Nature study. They are available everywhere and at all seasons of the year. Children should strike up something more than a mere nodding acquaintance with them on windy days: they are worthy of long personal friendships.

That Nature study has other limitations besides those already mentioned may frankly be conceded. It does not easily lend itself to simple experiment as distinct from observation. Those experiments which are possible extend over such long periods that interest is wont to flag. And it is not often that one can by weighing and measuring give mathematical precision to the results of one's investigations. As a consequence of these defects most head teachers of primary schools either supplement or supplant the Nature study course at the top of the school by a course of simple experimental physics and chemistry.

Take it for all in all, however, Nature study is one of the most valuable additions to the scheme of education for the young. It is certain that it has arrived. It is almost equally certain that it has come to stay.

CHAPTER XIX

SCRIPT WRITING

IN the year 1914 a strange portent appeared in a few London schools—a new and startling kind of handwriting. Only as handwriting, though, did it seem new, for it was soon recognised as merely a variant of ordinary print: it was print stripped of its shading and its serifs and reduced to its barest and most basal form. It consisted, in its initial stages at any rate, of little else but straight lines, circles, and parts of circles. The letters were not joined, the loops and up-strokes had all disappeared, a modified “a” and a modified “g” alone remained to distinguish the script from the distinctive features of the printed page.

The new penmanship was at first called “manuscript writing,” from its resemblance to the writing in some of the mediæval manuscripts. But “manuscript writing” was soon abbreviated into “script writing”; and “script writing” it remains to the present day.

It is not quite clear who fathered the idea (suspicion points to Mr. Cherrill and Mr. Scutt,

His Majesty's Inspectors) ; but it is quite certain who mothered it and nursed it. It was the Child Study Society. Under its fostering care the movement grew prodigiously. Starting almost simultaneously in two elementary girls' schools, St. Luke's, Edgware Road, and St. George the Martyr's, Bloomsbury, it soon spread over the whole of London and overflowed into the provinces.

Was this a natural growth, or was it a forced product ? Has the system spread by its own intrinsic worth, or is its progress, as some assert, due to official pressure ? It is true that Dr. Kimmins, who was then Chief Inspector of the London County Council, and several other inspectors, warmly encouraged the movement ; but that they exercised undue pressure is far from true. Other "fads," as the unbelieving call them, have been pushed by inspectors and preached from platforms and advertised in the press without securing one tithe of the success which has accompanied this system. In fact, there never has been since the beginning of popular education so swift and radical a change in the mode of teaching a fundamental subject. And there has been no mention of it in the Code, nor even in the Suggestions. Moreover, the change took place entirely during the war, when inspections were suspended, when the staffing

was reduced well below its normal strength, when the teachers hesitated to hazard a new venture, when they were glad, in fact, to drop all frills and to concentrate their minds on the plain essentials of schooling. No circumstances could be less propitious to the foisting of an idle fad. Nor have the adopters of the system merely taken it on tolerance; they have preached it with all the zeal of new converts. The infection has, in fact, been spread by the teachers themselves. And as enthusiasm is more infectious than logic—especially the cold logic which has behind it the weight of temporal authority—the rapid growth of the movement begins to be intelligible. Not that the system is itself illogical: there is every presumption that it has a sweet reasonableness of its own—that it persuades and convinces by its own worth.

To return to the writing itself, it offers a marked contrast to the style which it is supplanting. The most popular hand for the last thirty years has been known in the elementary school as Civil Service writing, and in the secondary school as Board School writing. It runs in long waves across the page. The letters are strung together by far too much string. And the general effect upon the mind is a sense of dreary monotony. As a spirited revolt against this flowing commercial hand there is clearly

much to be said in favour of script writing. Signs of a similar revolt are not lacking outside the schools. On the form of application for sugar-cards issued during the war the address of the applicant had to be written in print. The manager of a large emporium in London asserts that he receives 20,000 queries per month respecting letters and parcels that have gone astray, and that 70 per cent. of the cases are due to bad writing. He now recommends his clerks to print all names and addresses. The Civil Service Commissioners have so altered their instructions as to render print-writing permissible. All this is symptomatic of a widespread discontent with current modes of penmanship.

Script-writing, therefore, is of the nature of a revolt, and like most revolts in art or craftsmanship it draws its inspiration from a period when workmanship was traditionally sound. When did writing reach its highest point of excellence? Admittedly in the fifteenth century, especially as practised in Italy. It was then that the last of the manuscript writers pursued their craft; it was then that the printing-press imitated and preserved for posterity the most perfect examples of the art of writing; it is here that the historians of the development of handwriting bring their records to a close, in the belief that nothing which happened later was

worth recording. And the formal book-hand of the Italians of the fifteenth century is virtually the print of the present day.

After the invention of the press penmanship parted company from printing; and we must know something of its subsequent career if we are to realise the meaning of the present attempt to bring the two together again. By the sixteenth century writing had ceased to be practised by a craftsman, and began to be taught by a pedagogue: the professional penman was no longer a scribe, but a writing master. And he evolved a curious system of pen-gymnastics. The palmiest days of the pedagogic penman seem to have been reached in the second half of the seventeenth century and the first half of the eighteenth. The tradition of the old plain manuscript hand had all but died out, the pressure of modern utilitarian writing had not yet made itself felt, and formal penmanship became an ornamental and decorative display.

This phase of handwriting may perhaps best be studied in the copy-books of the great Cocker.

Edward Cocker flourished—in more senses than one—from 1631 to 1675. It is one of the curious caprices of fortune that his fame as a penman is overshadowed, or, indeed, totally eclipsed, by his fame as an arithmetician; yet his mathematical reputation rests on books of doubtful

authenticity published after his death, while the genuineness and greatness of his penmanship admit of no doubt whatever. As one example of his numerous books on handwriting may be cited : *The Pen's Triumph : being a Copy-Book containing a Variety of Examples of all Hands practised in the Nation according to the present Mode ; adorned with incomparable Knots and Flourishes . . . all distilled from the Limbeck of the Author's own Brain ; With a Discovery of the Secrets and Intricacies of this Art in such Directions as were never yet published, which will conduct an ingenious Practitioner to an unimagined Height.* And apparently he makes good his boast. The ornamentation of this and his other copy-books is very wonderful. The borders swarm with curves and spirals and "knots," with cherubs and birds and dragons all cunningly made of pen-strokes gracefully thickening and thinning, and so intertwined that the eye tries in vain to follow them.

When Cocker was not engraving his own script he sometimes engraved that of others. In 1664 was issued *Daniel's Copy-Book, written and invented by Rich. Daniel, Gent. and engraven by Edw. Cocker, Philomath.* The philomath (a charming and modest title) sometimes gives excellent advice. "Let not your breast," says he, "lie on the desk you write on. nor your

nose on the paper, but sit in as majestic a posture as you can." In our own day school medical officers have been wont to alarm the public with statistics of spinal curvature due to bad posture in writing and they give a detailed description of how a child ought to sit. Cocker sums up the whole matter in a phrase: Sit in as majestic a posture as you can.

The penmen who followed Cocker aimed at better writing and less ornament. The birds and beasts began to disappear from the margins, the more fantastic "modes" were abandoned, and more and more prominence was given to a certain stable and standard style, which indeed has remained the standard style almost to this day. In my youth the highest praise one could give a piece of script was to say that it looked like "copper-plate." And this standard style was probably called copper-plate because of the ease and frequency with which it was engraved. It is sometimes known as a legal hand. It is evidently of Italian origin; as also is a second or subsidiary style affected by the eighteenth century writers—a style more delicate and fanciful than copper-plate, with a larger predominance of thin strokes and a more arbitrary distribution of thick. The curious reader will find in George Bickham's *Universal Penman*, which was published in parts from 1733 to 1741, engraved speci-

mens of the handwriting of the most renowned penmen of the period.

By this time a noteworthy change had taken place in the use of the pen. From being a rigid tool it became a flexible tool. In the classical days the pen was an instrument with a chisel-shaped end: the thick strokes were produced by using the flat side, the thin strokes by using the edge, and the intermediate strokes by varying the angle. Now, on the other hand, the pen came to be used almost as a brush. It was no longer necessary to turn the pen sideways in order to make a thin line, for the pen itself was narrowed down to a fine point. The thicks and thins were produced by alternately opening and closing the nib—by light up-strokes and firm down-strokes. Pressure did now what breadth of nib did before. The new writing was neater than the old, it was less dependent on the structure of the tool, it admitted of a greater variety of shading, and it was less inky. The last quality was a distinct practical boon, as it enabled more to be written with one dip of the pen and counteracted the child's natural affinity for ink.

The dependence of shading on pressure was further enhanced by the invention of steel pens; for when these came into general use—as they did towards the middle of the nineteenth century—they were almost invariably made with

fine points. But in spite of its neat appearance copper-plate writing compared on the whole unfavourably with the old manuscript hand. It had less character and less dignity; it was neither so legible nor so beautiful; above all, it demanded a position for holding the pen which was strained and unnatural. For the pen had to be held straight, and not at that comfortable angle which all beginners spontaneously adopt.

In the nineteenth century two further changes took place. The less important was the disappearance of flourishes from school-taught writing. These flourishes are not to be taken too seriously, for they were probably regarded more as exhibitions of skill on the part of the writing master than as models to be imitated. The only vestige that remains is the little embellishment or rubric which many people still indulge in when they sign their names. Charles Dickens used to end his signature with a flourish which was quite wonderful.

A more important change was the insistence on a script which was not merely continuous in effect, but unbroken in the making. The pen was not to be lifted from the paper in writing even the longest word. Copper-plate looked connected, but it was written in bits; the business hand had to be flowing and continuous at all costs.

How comes it that after four centuries of estrangement between print and writing efforts are at last being made to reconcile them? I believe the initial impulse came from the arts and crafts movement associated with the name of William Morris. It was in the craft work of the Middle Ages that the leaders of this movement found the models which they admired and imitated. And although the mediæval tradition of penmanship had never really died out, for even at its period of greatest neglect it found a refuge in the illuminated address, it was not till Mr. Edward Johnston published in 1906 his book on *Writing and Illuminating and Lettering* that real interest in the subject was aroused. In schools of art, and, indeed, in all schools where art was seriously studied, lettering began to enter into the curriculum. And the beautiful type of writing practised in the art room could not fail to mould the tastes of the pupils and to modify the character of their ordinary penmanship.

But this was not the only influence at work. Recent researches in the pedagogy of writing have served to show that a frequent lifting of the pen greatly relieves the strain of writing, that the up-strokes take more time than the down-strokes, that the simpler the script and the nearer to an established norm the more easily it can be read, and that there is a distinct economy

of effort in dealing with one system of characters only for both reading and writing. Binet found that, equal legibility being secured, detached lettering is written faster than connected lettering; and this view has been amply confirmed by the researches of Dr. Kimmins into the speed of writing among London children.

Distinct, therefore, from the influence that streams from the art room a more widely pedagogical influence has penetrated the infant school. But it has not stopped there, for script writing is found to be established as a system in a number of senior schools both primary and secondary. And those who have adopted it are, as a rule, loud in its praise. They claim that it is much easier for young children to acquire, that the spelling is better, that really bad writing is eliminated, that pupils, both young and old, take more interest in it than in the ordinary hand, and that it ultimately develops into a modified form of cursive writing where most, if not all, of the letters are connected—a style which retains the legibility of print and at the same time allows scope for personal variations. And the evidence they adduce is very convincing, as may be seen from the pamphlet on *Manuscript Writing* issued by the Child Study Society.

The first advantage gained by the system is that the same characters are used both for reading

and for writing. The double series of symbols—the printed series and the written series—are to the beginner a source of confusion. With us adults custom has dulled the sense of difference. If, however, we write out an English passage in Greek characters we shall at once discern where the difficulty lies. The most familiar words will become barely recognisable. For in reading we apprehend a word as a whole and not as an aggregate of separate letters. Each word, or even each phrase, is a picture in itself. It is quite easy to prove in the psychological laboratory that we recognise a word in a much shorter time than it takes to recognise separately any one of its component letters. In addition, therefore, to the economy of time in learning to write there is an economy of time in learning to read what is written. The advantage of this to the young child is clear when we remember the importance of shortening the preliminary drudgery and hastening towards the time when he can use his handwriting for its legitimate purpose of recording and communicating thought.

The point on which manuscript writing is most frequently challenged is that of speed. At first blush it seems beyond the range of doubt that a running hand can be more readily written than the staccato of print. The running or cursive hand has been developed, like other

manual activities of common life, along the line of man's laziness. The very fact that it is the system that has survived tells immensely in favour of its facility. There was, long before the invention of printing, a dual practice—that of the formal or book hand on the one part, and the cursive hand on the other. The book hand proved too exacting for the ordinary purposes of life, and a more free and easy style crept into use. The book hand was for the professional scribe; the cursive hand for the laity. The former was a craft; the latter a convenience. And this, indeed, is the way in which the modern schools of art have regarded the matter. They have segregated lettering from writing. All of which seems to indicate that, while beauty and legibility may be claimed for the new penmanship, the merit of speed lies wholly with the old.

It is true that the running hand is the lazier hand, but it is not necessarily the speedier hand. Just as speech, unless constantly corrected and improved by reference to a good phonetic standard, tends to become slipshod, so does handwriting tend to degenerate along the lines of most facile movements. It becomes a horizontal zig-zag which a little girl of three can caricature with ease. But what is gained in speed is, in the case of speech, lost in intelligibility: and, in the case of writing, lost in legibility. To estimate

justly the speed of writing we should, as somebody once put it, add together the time it takes to write it and the time it takes to read it. The argument from survival—the plea that what survives is best—which is always a dubious one, is here palpably fallacious. If the argument were sound, after all the experience mankind has had in digging and shovelling and building and doing other forms of manual work, the prevailing methods would be the most economical of time and effort—would be in fact the most efficient. But the cinematograph has exploded this idea. When the movements of a worker, highly skilful in performing a particular task, are analysed by the cinematograph and compared with the analysed movements of an ordinary worker, the latter series of movements are found to contain some elements that are unnecessary, and others that hinder and impede. By the elimination of these elements the efficiency of the worker has been enormously increased. It still remains for somebody to analyse in the same way the movements involved in writing and to demonstrate which movements make for efficiency and which movements impede it.

The problem mainly concerns the connecting links between the letters. To link, or not to link, that is the question. The only justification of links is that they add to the ease and speed of

writing. If they do not do this they are not only harmless, they are positively harmful : for they mar the beauty of the writing and lower its legibility. Nobody can observe children learning to write without noticing that the loops and links give them more trouble than the essential symbols. Their fingers trace them as laboriously as they do the letters, and their minds find them meaningless and useless. With the letters they are familiar from the printed page : the links are new and extraneous.

Is there a saving of time in dragging the pen along the paper from letter to letter as compared with lifting the pen at the end of each letter and starting afresh with the next ? For us adults the reply is simple enough ; to drag the pen is incomparably easier. But would it have been if we had had equal practice in both methods ? That is a question which experiment alone can determine. And the researches of Dr. Kimmins have clearly demonstrated that young children at least can write script faster than they can write the ordinary cursive hand.

Another objection raised against the new handwriting is that it destroys individuality. It is pointed out that bankers refuse to pass cheques signed in print. This objection is based on a misunderstanding. Print writing is only the beginning of manuscript-writing. As the pupils

grow older they are directed to use what connections they find useful. They are encouraged, however, to weld the letters together instead of stringing them together. If they string them together they must use as little string as possible. This gives more character to the writing, not less. What a banker really objects to is not a manuscript hand, but a hand which bears no resemblance to the record in his book—especially if it is a colourless printing which nobody can identify and anybody can copy.

There is one point upon which all are agreed : the best way to begin writing is with script. Whatever may happen later, script should be the starting-point. That is why the system is so firmly established in the infant school. In the senior school its footing is more precarious. It is certain that there has lately been a strong reaction against the pursuance of bare print penmanship to the close of school life. It is now felt that a child who leaves school should be able to produce something which not only is writing, but looks like writing. And the main question at issue is : Should the new cursive hand be taught *de novo*, or should it be evolved from script ? I have in my own mind no doubt as to the right answer : It should be evolved from script.

To sum up the essentials of the movement,

script writing is historically a return to a tradition that had lapsed for over four hundred years ; from the utilitarian point of view it is a return to legibility ; from the pedagogical point of view it is a return to simplicity and economy of learning ; and from the artistic point of view it is a return from prettiness of decoration to beauty of essential structure.

CHAPTER XX

THE RETURN OF THE BABIES

DURING the first twenty years of the present century—the Children's Century—there occurred a curious ebb and flow of opinion on the proper way to train children under five years of age. The legal position was that children may begin to attend school at three and must begin at five. Between these two age limits children were allowed to go to school or to run about in the streets; and it was almost universally believed that it was better for them to go to school.

In the first decade of the century, however, a change of opinion took place. The school education of under-fives was attacked from two quarters. The medical profession began to see in this premature schooling a menace to the general stock of public health. They maintained that the young children were deprived of freedom, fresh air, exercise, sleep, and play at a time when an abundance of these things was essential to healthy growth. Moreover, the herding together of young children in large classes fostered the spread of certain infectious diseases.

Then came the educational assault. It was

discovered that the under-fives learnt nothing—or at any rate nothing worth mentioning. And it was feared that worse lay behind. It was feared that from the point of view of mental development not only was no benefit received, but definite injury. Growth was at least retarded, if not arrested. The children's minds, instead of being brightened by schooling, were distinctly dulled thereby. This, if true, was a serious indictment; and the Board of Education was roused to appoint a Commission of five women inspectors to investigate and report on the whole matter. When this report was published in 1905 it was found to confirm the worst fears of the pessimists.

Mr. W. H. Winch tried in another way, the way of scientific research, to discover when a young child should begin to attend school; and he came to the conclusion that ultimately it did not matter whether the child began at three or at five. In two or three years' time the late beginner overtook the early beginner.

The result was a change of attitude on the part of the parents and of the Board of Education. The more enlightened parents hesitated to send their younger children to school to be fogged in mind and infected in body; and the Board of Education inserted a new clause in the code giving the local authorities power to ex-

clude children under five if they thought it desirable. The school attendance of under-fives began consequently to decline. The process was accelerated by the cry for smaller classes. The pace at which this elimination was effected can be seen from the statistics for London. Of all the children between three and five of elementary school status about one-half was in actual attendance in 1905. By 1914 the proportion had dropped to one-third. The war brought with it further and more rapid changes. Although it stopped the reduction in the size of classes it failed to stop the ousting of the under-fives. For there was an extensive withdrawal of teachers for military service, and there was an urgent call for economy. Thus there arose a tendency to withhold both teachers and funds from all branches of educational work which were of doubtful or debatable value ; and the organisation for dealing with the under-fives was one of the first to suffer. Attempts were made in certain quarters to exclude these children altogether, but the hardships were so great that the attempts failed. The hardships were poignant and apparent where the mothers had to leave home during the day to work at munitions or to take the place of men withdrawn for military service.

As a result the proportion of under-fives in the school was reduced to one-fifth. It came

down from one-half to one-third before the war, and from one-third to one-fifth after the war began. Similar changes seem to have taken place all over the country. Thus we see that although the school door had never been actually shut against the under-fives it had been gradually closing. It had become more and more difficult for the under-fives to enter the school; and the happy consummation desired by the reformers at the beginning of the century seemed to be rapidly approaching.

If, then, the trend of professional opinion and the pressure of economic needs had both made for the exclusion of children under five from the people's schools, how came it that towards the close of the great war there arose a clamorous demand for a reversing of the process—for the provision of some sort of school training for these young people? The economic factor need not detain us. It does not touch the vital issue; it does not help us to answer the question: Is schooling of any kind good for children under five years of age? But the arguments so forcibly urged by doctors and educators at the beginning of the century cannot be so lightly dismissed. They still appealed strongly to a considerable number of people. Their real cogency had however disappeared. The very events of the previous decade had sapped their strength.

Much water had passed under the bridge since the outcry against babies' classes first became clamant.

The medical inspection of schools had become an accomplished fact. Careful investigations had been made into the influence of schooling on the spread of infectious disease on the one hand, and the countervailing effect of increased opportunities for medical supervision on the other, with the result that medical opinion had veered round. The view now held by those school medical officers whose opinions were authoritative was that the danger of school infection had been much exaggerated, and that the increased facilities for detecting and isolating cases of infection more than compensated for the evils of crowding in an institution. It was realised that in densely-populated areas exclusion from school did not mean isolation. Infection went on merrily in the home and the street, and it generally happened that the doctor had neither look nor say in the matter. When the children were in school the case was different. Here at least detection was possible, and there was a bigger chance of the epidemic being brought under control. But this was only part of the hygienic advantage gained by early attendance at school. Many infantile defects of teeth, throat, nose, eye, and ear could be easily coped with if attended to at an early age. If neg-

lected, as they were liable to be neglected if the child by not attending school escaped the scrutiny of the school nurse and the school doctor, they tend to become chronic. They are in any case less amenable to treatment. So the *volte face* made by the medical profession can readily be understood. The whole situation had been changed by the entry of the doctor into the school.

But how are we to explain the change of opinion in educational circles? The answer can be given in one word—Montessori. It is true that the Froebelians had been silently and steadily working in the same direction; and it is true that the educational objections as urged by the extremists were never very convincing. Few really believed that no education of any kind should be given to children under five except such as is afforded by the haphazard impact of event in home, street, garden, and field. Fewer still believed that these young children were necessarily uneducable at school. However that may be, such beliefs of this kind as existed had been finally destroyed by the definite results achieved by Dr. Montessori and her followers. They had abundantly demonstrated that it was not schooling in itself that was wrong, but the kind of schooling. It was not even the stuff that was taught, but the way in which it was taught.

Thus had it come to pass that all parties concerned—parents, teachers, and doctors—joined their voices in calling for a reversal of the policy of the previous decade and for the establishment of a new type of school for the education of children below the compulsory school age. They demanded a new type because the old was not good enough. They demanded a type which should meet more completely than the infant school possibly could the old objections raised by the teachers on the one side and by the doctors on the other. They demanded a type which should stretch out one hand to the nursery, and the other to the school. And it was to be called the Nursery School.

The consequence was that the Fisher Act of 1918 contained a clause which empowered Local Education Authorities to aid and to supply nursery schools. But although the nation was at that time rich in enthusiasm it was poor in pocket, and the number of nursery schools that came into being was not great: it never seems to have reached thirty for the whole kingdom. And when the Geddes Axe fell it cut off all hopes of immediate extension; but it failed to kill those already in existence. And it failed to stop the return of the babies to the infant school. That is proceeding apace.

CHAPTER XXI

SCHOOL OR HOME ?

To answer the question, Which is the better place for a child between the ages of three and five, the home or the school ? is just as difficult as to answer the question, Which is the larger, a piece of iron or a piece of lead ? We must first specify and describe the home, and we must specify and describe the school. I shall, however, attempt to establish three broad theses—first, that the majority of the homes fall short of an ideal training-ground for young children ; secondly, that the infant school of the past was worse than the average home ; and thirdly, that the infant school of to-day is better than the average home.

Let us consider what is involved in the proper bringing up of a child during the second triennium of his life. He has just begun to break away from his mother's apron-strings, and he does not perhaps require an attention so vigilant and unremitting as in earlier years ; yet the care of him makes serious inroads into the time and energy of somebody. If allowed to roam freely

about the house, the garden, or the street, he is certain to injure or destroy property (a matter of no great consequence), and almost certain to injure his own person (a matter which may prove of grave consequence). In fact, merely to keep him out of mischief requires the part service of an adult. But this is only the negative side of his up-bringing—the side that merely needs a minder. There is, however, an all-important positive side. A child of this age is eminently impressionable : his memory for entirely new things is both facile and tenacious ; he can acquire a spoken language more rapidly than an adult ; he is constantly forming habits of knowledge and skill, of courtesy and usefulness, which are the foundations of all his later learning and accomplishments. And this tremendous habit-forming process cannot be stopped. The young child will pick up habits of some kind whether we help him or not ; and if he does not pick up good ones he will pick up bad ones. To adopt William James's metaphor, he is making his nervous system either his friend or his enemy. The distinction between good breeding and bad breeding depends almost entirely upon the way in which this early habit-forming process is guided. The cult of the hand and the cult of the tongue ; to dance and to sing ; to speak graciously and to move gracefully ; to play with

zest and to work with joy ; to care intelligently for bird, beast, and plant ; to perform those daily acts which make for clean and wholesome living—these are the activities proper to the age in question. Are they to be guided by an amateur or an expert ?

Though it may be maintained that every mother ought to be an expert in these matters, we must accept the fact that very few mothers are. Even if they were they would have neither the time nor the energy to put their special knowledge into practice. The poorest go out to work ; the rest are absorbed in household duties. Even when there is no baby in arms to look after (there generally is), and when also a servant is employed (there rarely is), the mother has but little opportunity for educating her own children. For she still has her share of the day's work, which is not the pursuit of knowledge, but the pursuit of dirt. Has the reader considered how much of the energy expended in the home is directed to the mere removal of dirt—dusting, cleaning, sweeping, scrubbing, polishing, washing up and washing down, washing dishes, washing clothes, and washing babies ? These are necessary functions, but they are not intellectually stimulating. The very young child seems to find in them much that is fascinating, but as he gets older he discovers that they are part of the

drudgery of life : they have no power to pique his curiosity or to stir his imagination. In the primitive household of the past the fundamental occupations of mankind were open to the casual gaze ; in the modern household they are carefully concealed. The child at home can trace the water no farther than the tap, the milk no farther than the front doorstep, and the bread no farther than the baker's boy. In fact, the home provides too meagre an environment to stimulate adequately the natural growth of the child's powers. There are large patches of his mind lying fallow at a time when there is no point in their lying fallow. They are not resting, but rusting. A more generous and more varied environment is needed—an environment specially devised to meet the case. And this environment is provided by the well-equipped school.

The question of home *versus* school has been brought nearer to a solution by the tide of events within the school ; for during the last decade the changes in the school, especially the infant school, have always been in the same direction—the direction of the ideal home. There is scarcely an infant school in the kingdom whose atmosphere is not more homelike than it was ten or fifteen years ago. During the latter half of the nineteenth century the baby-room of the infant school

was as much unlike a nursery as it possibly could be. The little children of three and four had to sit in rows on a steep gallery rising in tiers from the teacher's desk. In front of each row stood a long, narrow desk, either with a fixed top which served to pin the children in more effectively, or with a hinged ledge which not infrequently pinched their fingers. In any case, once they came to school there they remained, with but a brief interval for recreation, cabined, cribbed, confined for the whole session. And the numbers seated on one gallery, under the charge of one teacher, often ran up to sixty, seventy, or even a hundred. How the teachers ever succeeded in keeping them in order, as in fact they generally did, is a mystery at which I never cease to marvel. Did any house ever possess so horrible a piece of furniture? Was any child in any human home ever required to sit on a narrow seat at a narrow desk for hours on end? And when these babes—"the maternal milk hardly dry upon their lips"—were not engaged in trying to write the alphabet and numerals on sand-trays or slates, they had to sit upright with folded arms to be instructed by "Teacher." They had to read in concert after Teacher letters, numbers, and small words from a card which stood on an easel in front of the class; they had to chant in chorus the multiplication table; and

sometimes, by way of a treat, they had to listen to an amazing rigmarole known as an object lesson. I have before me as I write a little book, much used at that period, and called *Notes of Lessons for Infant Schools*. I open the book at random and find a lesson on the Duck. There are nearly five pages of closely packed information. Twelve different kinds of duck are named and described, including the sheldrake, the teal, the widgeon, and the Aylesbury duck. Mrs. Barbauld's stuff, which Charles Lamb so heartily cursed a hundred years ago, is mild and sane in comparison. And yet this kind of lesson was considered within quite recent years as fit mental food for children barely out of their swaddling clothes. Not by the teachers, mark you, but by those who took upon themselves to teach the teachers their business. Indeed, it is a high tribute to the power which some women have over little children that they triumphed in so amazing a way over many of these disabilities. How often have I seen little round-faced children sitting with folded arms looking up into Teacher's face, hopelessly at sea in their efforts to understand, but with eyes full of love and admiration for Teacher, trying their best to please her, even to the suppressing of the strongest impulses of their nature ! That is what the baby-room was like forty years ago.

Going back a little farther we find still more incredible things taking place. In the year 1835 there was published a book on *Infant Education from Two to Six Years of Age*, edited by William and Robert Chambers, a book which purported to set forth the most enlightened views of the day. Much concern is professed that the tender minds of young children should not be taxed with severe intellectual labour, and it is accordingly suggested that the lessons should seldom last more than an hour, that numeration should not go beyond trillions, and that parsing and the detection of grammatical errors should not be too frequently practised. Their memories, however, being absorbent and retentive, the children are required to learn by heart that eight gallons make one firkin of ale and nine gallons make one firkin of beer, that fifty-six pounds make one truss of old hay and sixty pounds make one truss of new hay. They must also know that a parallelopiped is a prism which has a parallelogram for its base, and a parallelogram for each of its sides. They are to be informed that "the ellipse or oval is a curved line, the ends of which meet, but every point of which is not equally distant from the centre; but this is true of the centre of the two ends, and the centre of the two sides." Not only must their minds be stored with this wonderful knowledge, but false doctrines (non-

mathematical) must be eradicated. They must get rid of the belief that a man has a rib less than a woman, that the tenth wave of the sea is more dangerous than the other nine, that all animals on the land have others like them in the sea, that ignorance is bliss, that men of business have no time for study, that the rich are always happy, and that God sends meat with the mouth. This is what the babies, sitting helpless in galleries, had to endure ninety years ago.

Let us enter the baby-room of a good infant school to-day. How different a picture ! The room is the largest and sunniest in the school. The floor is flat and free from heavy furniture. Small portable tables and chairs are scattered about the room. On the walls are simple nursery pictures. In the cupboards, and on ledges round the room, is seen an abundance of toys to play with and apparatus to build and experiment with. No fixed time-table is followed. Sometimes all the children are doing the same thing, such as playing a game, singing a song, modelling in plasticine, drawing with coloured crayons on brown paper, building with wooden bricks, or cutting out pictures ; sometimes they are all doing different things, each following his own bent. And there is little or no restriction upon their movements. They can walk about the room, look on at companions working, seek

their help, show Teacher their work and discuss it with her. Each is as free to act as in his own home. And he is the victim of no irrational criticism. Nobody nags at him or chides him for all he does. Nobody slaps him, or shakes him, or calls him a little nuisance. Talking in school, which in the olden days was considered a crime, is now regarded as a virtue. The shy and the taciturn are encouraged to talk. Encouragement and praise take the place of fault-finding. Each is urged to do his best, and his best, however bad it is, always gets a word of praise. His private belongings rest in his own pigeon-hole ; and when the time comes for the mid-morning lunch he fetches therefrom his little packet of bread and butter, spreads the paper out on the table, and eats his frugal meal in decency and comfort. If he is thirsty he must fetch water for himself. To help himself in this and other ways is, indeed, a highly important part of his training. Go there early in the afternoon, and you will find the bulk of the children asleep in improvised cots.

In thus bringing the school nearer in kind to the home what points of difference remain are distinctly in favour of the school. For the children are sympathetically guided and trained by people who have made a special study of the mental and physical hygiene of childhood, the

equipment is more abundant and more scientifically adapted to infantile needs, and—an important point—the school is under medical supervision. The doctor and the nurse have a right of entry into the school which they have not into the home. They pay visits regularly, not merely when they are called in; they safeguard the children's right to health and physical fitness; they protect them against their own ignorance and against the carelessness of their own kin.

There is one aspect of the home—its atmosphere—to which insufficient reference has here been made. The young child flourishes best in an atmosphere of love, and nobody can lavish upon him so pure and fervent a love as his mother. This is all true; but many a mother, in the stress of straitened circumstances, has an unfortunate way of showing her love. Not always does she exhibit that love that seeketh not her own, that suffereth long and is kind. Ignorance of the real interests of her offspring vitiates the consequences of acts that spring from unexceptionable motives. And faults of temper—irritability and querulousness—often mask and mar the goodness of her intentions. This is not mentioned as an indictment of the mother, but as a mere unfolding of the fact that not all mothers are the best teachers of their own offspring, partly because they are cumbered about

with much serving, and partly because teaching demands special aptitude and special training.

Mother-love does much for the child at home, but it cannot do everything. Nor must we assume that the quality is absent in the school. Indeed, this very mother-love is the most characteristic feature of the born teacher of "babies"—the hall-mark of her high calling. For true mother-love, often more discerning and more discriminating than that of the actual mother, is abundantly found in the heart of many a young unmarried woman, and although as a teacher she has to distribute it over many units it is often more judiciously and more intelligently bestowed than if she had but one or two children to look after. This free showering of affection upon little children in school is more possible now than it ever was. When the little child was a grant-earning medium, when he could by passing or failing an examination bring credit or discredit on his teacher, she looked upon him with far different eyes from those with which she regards him now—a little human soul seeking her guidance and needing her love.

CHAPTER XXII

THE NURSERY SCHOOL

IF the babies' classes in the infant school are as good as I say, what need is there for Nursery Schools? The reply is that good as the babies' classes are they are not good enough. They fail to meet the multitudinous demands made by rapidly growing bodies and rapidly expanding minds. And they fail to meet social needs. They take no account of the mother who leaves home early in the morning and does not return till late in the afternoon. The classroom doors are opened too late and are closed too early. There is no mid-day meal, and no supervision between twelve o'clock and two. The classes are too large, the supply of fresh air too meagre, the risks of infection too great. The facilities for forming habits of cleanliness are insufficient for there are no tooth-brushes, no separate towels, and no baths. No provision is made for children between the ages of two and three. Finally, the atmosphere is too academic, and the pursuits proper to these young children are liable to be diverted by pressure from the classes above.

Hence the desire to establish a new order of

school, outside the elementary school system, emancipated from the elementary school tradition, and free to develop on its own lines ; a school the keyword to which is Hygiene—physical Hygiene, mental Hygiene, and moral Hygiene. For the main characteristic of the first lustrum of a child's life is growth. He grows more rapidly than in body, mind, and morals than at any other period of his life. By the end of the fifth year his brain has reached 90 per cent. of its final weight, and after the fifth year the rate of his mental development perceptibly slows down. And a nursery school means a place where this period of tremendous expansion may most pleasantly and most auspiciously be passed.

For a nursery school we need a house and a garden ; and some think the house is the essential thing, while others think the garden is the essential thing. The first type of nursery school is a house with a garden attached ; the second, a garden with a house attached. The first was the original type of which models had been before the public eye for a whole decade before Mr. Fisher brought in his Education Bill, and he apparently had them in mind when he framed his regulations for nursery schools. These models were the two free kindergartens established by the Froebel Educational Institute, one at Notting Hill and the other at Somers Town.

Each of these kindergartens has now become a recognised nursery school, and is held in a typical London house with a basement below and three storeys above, with narrow stairs and a small garden—just such a house, in fact, as would be occupied by the richer class of people who send their children to elementary schools. And the children—there are about forty or fifty of them ranging from two to five years of age—have the free run of the house. They can go down to the basement and see the housekeeper at work in the kitchen. They can go upstairs into the dormitories and fix up or put away the small cots in which they sleep of an afternoon. In fact, to do this is part of the day's routine. They are not helped any more than is absolutely necessary. When they come in the morning they change their outdoor boots for sandshoes and put on clean overalls. Each has his private peg, his private pigeon-hole, and his private toilet requisites, such as a towel, a mug, and a tooth-brush. And when noon comes they put away their pictures and their playthings, and arrange the little tables for luncheon. They spread thereon clean tablecloths and lay the table in good order. Some act as waiters and serve the others before they sit down themselves. And the precedence they give to the youngest and weakest is pleasant to behold. So in addition

to the games and occupations of the infant school they have other pursuits more specially characteristic of the home. In the garden they are less fortunate. It is more drab than green, as, of course, is every garden in the more crowded parts of London. But for all its drabness it has its points of delight—its few trees, its little bits of greenery, its swing, its seesaw, and its sand-pit.

That is one kind of nursery school. But there is another kind, where a wilderness of sordid slumdom is made to blossom into the most wonderful of roses—the roses that appear on the cheeks of happy healthy childhood; where the children pass not from one house to another house, but from closed walls to the glory of the open air. There is but one sample of this kind, and it is to be found in Deptford, where Miss Margaret McMillan has established an open-air nursery school, which she has named after her sister Rachel, who started the venture with her but died before it came to fruition.¹ It is the largest nursery school in England. Indeed, it is more than a school, it is a colony. It is a centre of light for all that bears on the bringing

¹ A full description of this notable school will be found in the following books: *The Nursery School*, by Margaret McMillan: Dent, 7s. 6d.; *The Open-Air Nursery School*, by E. Stevinson: Dent, 2s. 6d

up of children ; and round it gather the mothers of darkest Deptford to learn lessons which they never learnt at school ; and there a number of youthful women are being trained to minister to the young, either as teachers or as nurses ; and certain ancient houses close by the school have been remodelled, and swept and garnished and turned into hostels and clinics and staff-rooms ; and the whole place bustles with life, a city of children, full of pleasantness, and breathing an air of " glad, confident morning."

The school opens not at nine but at eight, and closes not at four but at half-past five. Three substantial meals are served during the day, breakfast, dinner, and tea. The crowning glory of the school is the health of the children. To quote Miss McMillan, " They throw off their diseases like old garments, and step forth in beauty, often in wonderful beauty." It is estimated that about 80 per cent. of children of nursery school age suffer from rickets. But the medical reports state that after a year's attendance at this school there is no trace of the disease. Let Miss McMillan speak for herself :

" There are few days in the year when the Sun God does not come for a little while, and always, winter or summer, morning or afternoon, we let Him bring His great healing and joy to our children. That is their birthright. Here it is re-

stored to them. All the afternoon, and on fine mornings, they are playing, working, sleeping where He can find them. That is the great source of our rapid cures. Within a year all our cases of rickets are cured. There is no more anæmia. No more dark threat of death, and of something worse than death. At 5 to 5.30, after the evening meal, a long line of mothers and elder sisters come up the cloisters to fetch the children. With what joy and wonder does many a woman clasp her child, noting the glow of health in cheek and eye, and the passing of every sad and stubborn trace of long weakness and misery."

Miss McMillan has raised the standard of a noble ideal ; and, in spite of the lions in the way, it is inconceivable that her brave attempt to realise that ideal will not be copied by others. But even if it is not, even if it stands alone, the Rachel McMillan school will go down to history with Pestalozzi's school at Stanz as a shining example of what energy and enthusiasm can do for the betterment of childhood. For, different as the schools are, the same burning zeal animated the founders of both.

There are other nursery schools, too, well worthy of note as monuments of devotion, in the teeth of great difficulties, to the interests of young life. Mrs. Evelegh has turned two outhouses,

with a triangular courtyard between, into a charming littleschool (The Jellicoe Nursery School, Gospel Oak), which rendered valiant social service in the dark days of the war. And amid the dreary streets of Poplar Miss Lester has reared The Children's Home, an ideal nursery school of its kind—the indoor kind. But the only garden it has is on the roof. Gardens are difficult to find in Poplar.

In all nursery schools physical health, which means so much for the happiness of young children, is the first, if not the supreme, concern. The needs of the body are so imperative that until they are met everything else has to stand aside. But when the needs of the body are satisfied the needs of the mind begin to make themselves felt. And these needs are not less important, and, indeed, in the long run, not less importunate. The child's mind, within the range of his intelligence, is quite as active as his limbs and his fingers. The mills of thought are always turning, and they call for more and more grist to grind. The only children I have seen suffering from boredom at a nursery school are those who have been given toys to play with after those toys have exhausted their curiosity and have ceased to stimulate either their imagination or their muscles. They want something to do, something which will occupy their minds no

less than their bodies. And that is why the individual occupations, the didactive apparatus of various kinds, that have been imported into the infant schools within the last decade, have proved so inestimable a boon in the nursery school. It is not so much in the fact that the new materials teach the children the rudiments of reading, writing, and number before the actual need for using them emerges that their real value lies, but rather in the fact that they pleasantly engage the children's mental powers. And if they profitably engage them as well, that is so much to the good. The only doubt that creeps into one's mind is whether the children might not still more pleasantly and still more profitably be engaged in the active interrogation of Nature, in laying up richer stores of knowledge gained at first-hand from the "great wide beautiful wonderful world." Fifteen years ago we in England had no doubts at all on this point. We felt perfectly sure that children under five should have no dealings with the three R's. Now we are by no means sure; though we still feel that those who take over the children from the nursery school should not demand any definite knowledge of the three R's. If they get any they should accept it as a gift and not as a right.

Whatever doubt there may be about the best regimen for the children's minds there is no

doubt at all about the best regimen for their souls. Their souls no less than their bodies stand in urgent need of fresh air and sunshine; for, spiritually interpreted, fresh air means liberty, and sunshine means love. The only possible discipline in the nursery school is free discipline. The harsh suppression of the past, with its harvest of fear and misery, is unthinkable in the new schools. The showering of wise and discerning love upon a young child is not a matter of weak sentimentality but a matter that profoundly affects his happiness now and his mental and physical health till the end of his days.

Let me illustrate the baleful effects of stern discipline by a case recorded by Professor Groves of Boston University.¹ Many years ago a five-year-old boy, whose parents had gone away on a visit, was left in charge of a housekeeper. She believed him to be guilty of some childish offence, which as a matter of fact he had not committed. When she accused him of it he denied it; and, as a punishment, she shut him in a room at the top of the house, and told him that he must live on bread and water till he had confessed his fault. But he was unable to pretend to be guilty when he was not guilty, and the little fellow had to live alone in a third-floor room for three days and three nights. He was released only when

¹ *Personality and Social Adjustment*, p. 91.

his parents unexpectedly returned home. A quarter of a century later the boy, now a happy father with two children of his own, received a letter from the old housekeeper asking forgiveness for her cruel treatment of the little five-year-old, as she had long since had positive proof of his innocence. But the matter did not end there. In his sixtieth year the man had a serious illness, during which he became delirious; and he constantly implored his nurse to take him up to the top of the house. One day, when she was out, he persuaded his daughter to take him to the attic. And there he sat on a chest, weeping and moaning, and listening for sounds outside, and protesting his innocence. Watching by the bedside that night his son heard the father muttering: "They wouldn't come near me. Nobody came. I listened and listened. Three days and three nights. I was all alone, and nobody came."

That bitter experience had maimed the young lad's soul; and even when it was forgotten, if it ever was forgotten, it was not dead and done with, but lay in wait for him like a wild beast for over half a century, ready to spring upon him when he was old and ill and helpless. Children seem to feel everything more keenly than adults. I can well recall my own childish joys and sorrows—my delirious joys and my tragic sorrows.

Little things at which my elders smiled, or which they dismissed with a wave of the hand, were to me often fraught with terrible possibilities of pleasure or of pain. And I suppose most children are like that: in the common events of every-day life their griefs are more appalling than ours, and their pleasures more fervid.

In the nursery school, as in every other school, there are things that matter and things that do not matter; and, in view of what I have said above, foremost among the things that matter we must place the spiritual atmosphere. It is as hard to see as the physical atmosphere, and as easy to feel. It pervades and permeates all the activities of the school; it determines the relationship between teacher and taught; it regulates the development of the children's emotions; and it makes the difference between a happy school and an unhappy school. If the spiritual atmosphere be wrong nothing else can be right. If the spiritual atmosphere be right nothing else can be irremediably wrong.

Whatever else the nursery school does it should cherish the highest of the Christian virtues—that tender and protective feeling of the strong for the weak, and that beautiful feeling of affection the child has for his mother, his teacher, and his comrades. A little child loves love; he (or she mainly here) loves to “mother” and

he loves to be mothered. And he needs much of it. In some homes (fortunately very few) he gets none; his affections are starved almost out of existence. He learns to suppress his own demonstrations of affection; he learns to expect none from others.

Some years ago a woman called at an East End school and complained that she could "do nothing with" her daughter, a ten-year-old pupil at the school. This young girl was described as "a little devil"; she "cheeked" her mother, she disobeyed her mother, she stayed out late at night. Scolding did no good (the scolding meant swearing at her); thrashing did no good; she was incorrigible. The complaint had been made before; but the curious thing was that at school the girl never gave trouble; she was intelligent, good-tempered, and well-behaved. The head mistress got mother and daughter together into her private room, talked to them for some time, and at last asked them to kiss and make friends. It was the little girl who made the first move; she stretched out her arms towards her mother. Into the mother's eyes came a startled look; then, with an awkward gesture as though she were doing a shameful thing, she took her little girl into her arms and kissed her. Both burst into tears. That little girl had not been kissed since she was a baby.

Whether that reconciling kiss healed her troubles I cannot say, but her mother never again came to school to complain about her misdeeds.

The entire absence of parental and filial love is very rare; but its presence in inadequate measure is by no means rare. Both sides are necessary—to love and to be loved; to give and to receive; to remember others and to be remembered oneself. The child who loves much but is loved little in return is a pathetic little creature, prone to retire within himself and to harden his heart; the child who is loved much and loves little in return is the spoilt child—a still more pathetic figure, for while the former difficulty arises from a defect of opportunity, the latter arises from a defect of character.

It is quite easy to love the good child: it requires much charity to love the naughty child. And it requires much insight to love him wisely. And yet he needs it just as much as the good child.

There is no lack of this disinterested service in any of our schools, certainly not in our nursery schools. About a year ago I piloted Dr. Rudolph Steiner round the Rachel McMillan nursery school, and in his broken English he made just one comment: "There is here much love."

INDEX

- Adams, J., 77, 108, 110, 123,
 148, 152, 155, 166
 Adler, A., 117, 124
 Alice in Wonderland, 25
 America, viii, 91, 159
 Antony, M., 140
 Aristotle, 140, 143
 Arithmetic, 224
 Arnold, M., 115
 Atoms, 180
 Aurelius, M., 121
 Authority, 27 ff.

 Bacon, F., 42, 205, 238
 Bagehot, W., 167
 Bagley, W. C., 251
 Bailey, Bill, 87, 88
 Barbauld, Mrs., 24, 260
 Bassett, R., 196
 Bax, Belfort, 193
 Belloc, Hilaire, 18
 Bennett, Arnold, 160, 161, 217
 Berkeley, G., 140
 Bessemer, Henry, 223 ff.
 Bible, The, 42
 Bickham, G., 286
 Bilingualism, 215
 Billings, Josh, 85
 Blair, R., 5
 Bradby, M. K., 122
 Bramah, E., 114
 Breal, M., 147, 214
 Breuer, 125
 British Empire, 208
 Brown, J., xi
 Browning, R., 137
 Bunyan, J., 148
 Burke, E., 206
 Burt, Cyril, xi, 125

 Busby, R., 6
 Butler, S., 121, 189
 Byron, 137

 Cæsar, 80, 204, 243
 Calvin, J., 20
 Cambridge, 3
 Capital punishment, 40
 (*caritas*, 32, 138, 325
 Carlyle, T., 43 ff.
 Catchwords, 78, 79
 Cellini, B., 131
 Chambers, W. and R., 31c
 Charles II, 6
 Charterhouse, 4
 Chaucer, G., 206, 220
 Chemistry, 226, 275
 Cherrill, A. H., 280
 Chesterton, G. K., 204
 Child Study Society, 281, 29c
 Children's rights, 1 ff.
 Churchill, W., 217
 Civil Service, 282, 283
 Classes, Large, 11, 35, 36
 Cocker, E., 284 ff.
 Coleridge, Lord, 218
 Complex, 120 ff., 141
 Conflict, 64, 65
 Coué, E., 117
 Curriculum, The, 36, 166, 167

 Dalton, J., 172
 Dalton Plan, 183, 190, 196,
 197
 Dame Schools, 198
 Death, 17
 De Morgan, W., 180
 Descartes, R., 143
 Dickens, C., 172, 288

- Drawing, 227, 246 ff.
 Du Maurier, G., 180

 Edison, T. A., 181
 Education, Board of, 230 ff., 298
 Edwards, J., 20
 Eliot, Pres., 169
 Elizabeth, Queen, 206
 Elliott, M., 21 ff
 Emerson, R. W., 52, 59, 114, 274
 Emulation, 108, 109
 English, 208 ff.
 Erasmus, 206
 Eton, 5, 6 ff., 29
 Euclid, 124, 153, 228
 Eveleigh, Mrs. H. J., 320

 Fisher Act, The, 303
 Fluellen, 228
 Flugel, J. C., 136
 Forgetting, 129, 130
 Foster, W. S., 174
 Freedom, 63 ff., 183
 Freud, S., 115, 117, 124
 Froebel, F., 191

 Galton, F., 169, 170, 173, 185, 186
 Garnett, W., 71
 Geddes Axe, 303
 Geography, 227, 228
 Geometry, 228
 German philosophy, 43
Gestalt, 162 ff.
 Gibbon, E., 206
 Gladstone, W. E., 7
 Goldsmith, O., 206
 Goodall, J., 9
 Grahame, Kenneth, 111
 Grammar, vii, viii, 224
 Grammar Schools, 203 ff.
 Greece, 2, 207, 219
 Greek, 4, 203, 210 ff., 235, 291
 Green, T. H., 43
 Groves, Prof., 323
 Grundy, Mrs., 41
 Guide to Knowledge, 259
 Guyau, M., 119

 Hall, C., 21
 Hamlet, 139, 140
 Harborton, Vis., 144
 Harris, O'Brien, 196
 Harrow, 6
 Hayward, F. H., 201
 Hebrew, 215
 Hegel, G. W. F., 43, 47
 Heine, H., 5, 203
 Henley, W. E., 114
 Higgins, Bill, 14, 15
 Hobbes, T., 205
 Hobbies, 97
 Holinshed, R., 140
 Holmes, O. W., 79, 178, 180, 220
 Homer, 217, 218, 220
 Horace, 3, 210, 216, 217
 Horne, H. H., 169, 170
 House system, 110
 Howard Plan, 196
 Hugo, V., 158
 Hume, D., 140
 Humour, 110 ff.
 Huxley, T. H., 65, 67, 246
 Hygiene, 316

 Individual work, 70, 183 ff.
 Italy, 283, 284

 Jackman, Marshall, 189, 190
 James, W., 78, 114, 139, 111, 155, 157, 158, 305
 Jespersen, O., 214
 Johnson, S., 3, 206
 Johnston, E., 289
 Jones, E., 130
 Jung, C. G., 117, 124

 Kant, E., 40
 Karma, 47
 Kate, J., 6 ff., 29
 Keatinge, M. W., 119
 Keats, J., 217, 222
 Kempis, Thomas à, 121
 Kimmins, C. W., 281, 290, 294
 Koffka, K., 163
 Khyber Pass, 89
 Kyd, T., 140

- La Rochefoucauld, 121
 Lamb, C., 23, 261, 309
 Lane, H., 53
 Latin, 5, 7, 37, 76, 145, 203 ff.
 Law, Roman, 40
 Lay, W., 123
 Lear, E., 24
 Lester, D., 321
 Lichfield, 3
 Liebeault, Dr., 124
 Locke, J., 140
 Locker-Lampson, 1, 111
 London schools, 10 ff., 99 ff.,
 277, 278, 281

 McBride, P., 123
 McDougall, W., 139
 Machen, A., 99
 Mackenzie, J. S., 43, 46
 Mackinder, J. M., 201
 McMillan, M., 318 ff.
 McMunn, N. E., 54, 55, 81
 Mahm, W., 6
 Masochism, 31 ff.
 Mathematics, 209, 244 ff.
 Mayo, C., 200 ff.
 Medical inspection, 301 ff.
 Memory, 157 ff.
 Mental Tests, vi, vii
 Meynell, A., 277
 Miall, L. C., 246
 Middle Ages, 209
 Mikado, The, 48
 Millais, J. E., 5
 Milne, A. A., 22
 Milton, J., 3, 205
 Montessori, M., 39, 54, 183,
 190 ff., 229, 302
 More, T., 205
 Morley, J., 7
 Morris, W., 289
 Moses, 121
 Movements, v

 Nature Study, 268, 269, 270 ff.
 Newman, J. H., 218, 219
 Newton, I., 124, 149, 150,
 205
 Nunn, T. P., 66, 126, 201, 202

 Œdipus Complex, 132 ff.
 O'Rell, Max, 86
 Oxford, ix, 43

 Parents, 1 ff.
 Parkhurst, H., 196
 Pascal, B., 121
 Pathology, 35
 Payn, J., 123, 211
 Pendennis, 4
 Pendlebury, C., 209
 Penty, A. J., 40
 Pestalozzi, J. H., 260, 261, 320
 Physics, 275, 276
 Pitt, W., 1
 Plato, 245
 Plutarch, 140
 Preventive Punishment, 39-41
 Protective Punishment, 38, 39
 Psycho-analysis, 31, 114 ff.
 Psychology, vi
 Punishment, 3 ff., 28 ff., 35 ff.,
 51 ff., 108

 Radice, S., 195
 Rebellions, School, 8, 9, 93
 Relations, 164 ff.
 Religion, 25
 Renaissance, The, 207
 Rennie, B., 196
 Retributive Punishment, 42 ff.
 Reynolds, J., 200
 Rivers, W. H. R., 124
 Rome, 2, 204 ff.
 Rotterdam, 206
 Rousseau, J. J., 50
 Royal Academy, 5
 Ruskin, J., 40, 178

 Sadism, 31 ff.
 St. Augustine, 3
 St. John, 180
 St. Louis, 3
 St. Paul, 138
 St. Paul's School, 86, 209
 Sampson, G., 220
 Sarcasm, 108
 Saxo Grammaticus, 140
 Science, 209, 259

- Scutt, W., 280
 Self-assertion, 31 ff.
 Sentimentality, 192 ff.
 Shakespeare, W., 139, 140, 215, 220
 Shaw, G. B., 1, 2, 121
 Shelley, P. B., 222
 Sleight, W. G., 159
 Smith, Sydney, 193
 Socrates, 59, 219
 Sophocles, 222
 Space, 143
 Spearman, C., 142, 149, 162, 164 ff.
 Spelling, 226, 237, 243, 244
 Spencer, H., 50 ff, 66, 147, 148, 152
 Sports, 97
 Squeers, 82
 Steiner, R., 327
 Stevenson, R. L., 127, 128
 Stevinson, E., 318
 Stoner, W. S., 105, 217
 Stout, G. F., 139
 Sublimation, 127
 Suggestion, 117 ff.
 Suggestions to Teachers, 231
 Tennyson, A., 3, 210
 Thackeray, W. M., 3, 4, 210
 Thompson, D'Arcy, 211, 259
 Thorndike, E. L., vii
 Three R's, The, 12, 37, 191, 229, 322
 Thring, E., 152
Times Educational Supplement, The, x
 Training College, The, 89, 92
 Trimmer, Mrs., 24, 260
 Turner, J. M. W., 172
 Tyndall, J., 170, 180
 Tyranny, 35 ff.
 Udall, N., 5, 6
 Ulysses, 98
 Unconscious, The, viii, ix, 114 ff.
 University, The, v, 235
 Vanity Fair, 4
 Vergil, 216, 220
 Victorian Age, The, vi
 Visualisation, 173 ff.
 Vulgate, The, 200
 Walpole House, 4
 Walworth, 13
 War, The Great, 86
 Ward, J., 139, 155
 Warton, J., 206
 Washington, G., 122
 Watson, J. B., 149
 Watt, J., 172
 Watts, I., 16 ff.
 Weismann, 155
 Wellington, Duke of, 137
 Wells, H. G., 258, 259
 Wertheimer, W., 149
 Westminster, 5, 6
 Westminster Abbey, 206
 Winch, W. H., 159, 298
 Wohlgemuth, A., 118, 122, 125
 Wordsworth, W., 115
 Zangwill, I., 115, 116

CENTRAL INSTITUTE OF EDUCATION
LIBRARY

Cl. No. 370/BAL.

Ac. No. 9289.

This book should be returned on or before the date last stamped below. An overdue charge of one annas will be made for each day the book is kept overtime. Text books if overkept are liable to a fine of As. -/8/- per day.

